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Mining Communities: Hard Lessons for the Future

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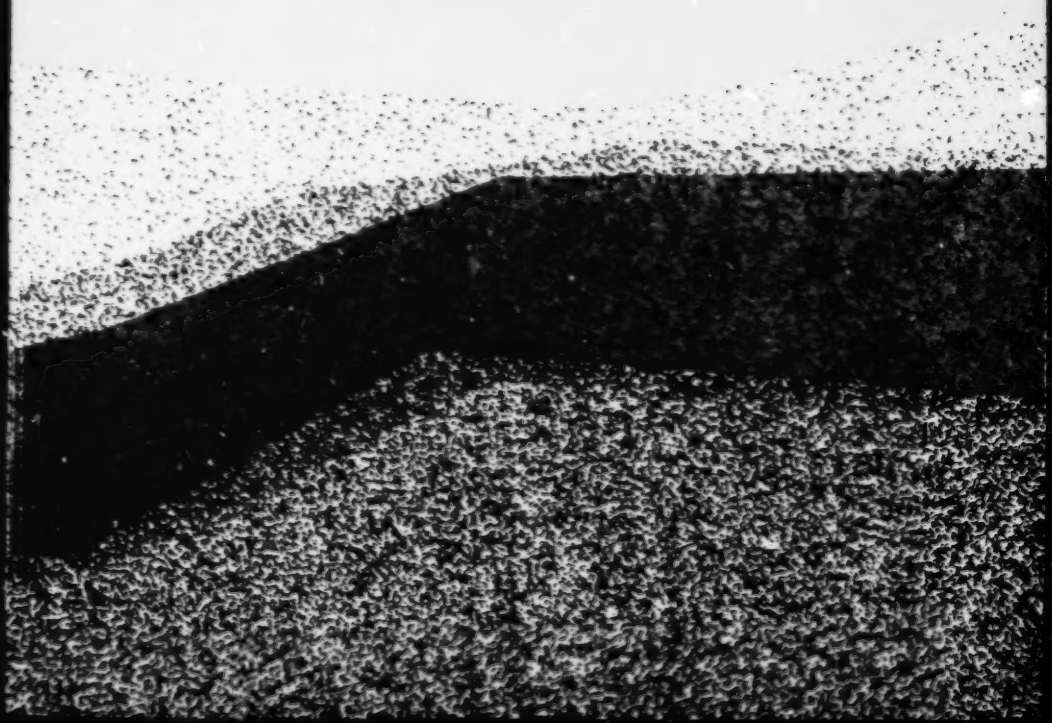

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HARD LESSONS FOR THE FUTURE

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FOREWORD

This volume contains the proceedings of the twelfth CRS Policy Discussion Seminar, sponsored by the Centre for Resource Studies. The CRS seminar series brings together individuals from industry, governments, labour, universities and other organizations to exchange their knowledge, experience, and views on selected policy issues related to Canada's mineral resources.

Much of the mining industry in Canada is located in remote or isolated regions and serviced by communities that are solely dependent on mining as their raison d'etre. As a consequence, once a closure decision is made, such mining communities wither and sometimes die. The recent economic difficulties of the mining industry have exacerbated this precarious situation, as closures or temporary shutdowns have increased in frequency and severity. As a result, considerable attention has been focused on the problems of mining communities, on ways to alleviate present economic and human hardships, and on ways to avoid repetition of such crises in the future.

Following on the recommendations of the Report of the Task Force on Mining Communities (September 1982), the Centre for Resource Studies organized a policy discussion seminar which drew on some of the hard lessons that have been learned in the course of mine closures, and looked at some of the new planning approaches that are being designed to avoid single-industry dependence and to share financial risks. It is hoped that the deliberations will help communities presently facing difficulties, and lead to improvements in both the handling of future closures for existing communities and the planning of future projects to avoid such hardships.

The seminar was held at the Donald Gordon Centre for Continuing Education in Kingston, on September 27-29, 1983. The program was arranged by Margot J. Wojciechowski with assistance from Robert Keyes of EMR and Katherine Graham of the Institute of Local Government. The proceedings were edited by Margot Wojciechowski and produced by Donna Beaubien. The organizers would also like to thank Charles Cloutier of EMR and Joseph Lazarovich of DIAND for their advice and assistance.

The Centre is grateful for the papers prepared by the speakers, and for the active participation of the conferees in the workshops and discussions.

Views expressed are those of individual participants and do not necessarily represent the views of the Centre for Resource Studies or its sponsors.

Margot J. Wojciechowski
Centre for Resource Studies

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IDENTIFYING THE ISSUES

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Assistant Deputy Minister,
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and Co-chairman, Task Force on Mining Communities

The Task Force on Mining Communities was established at a meeting of federal, provincial and territorial Ministers of Mines in Ottawa in January 1982, with the direction to report back in September of that year. While the Ottawa meeting was originally called to discuss the federal government's mineral policy proposals, attention turned to the worsening economic situation and the plight of mining communities. Because the Manitoba Minister of Energy and Mines played a major role in focusing this attention, Manitoba was subsequently invited to co-chair the Task Force. Between January and September, the Task Force was extremely active and energetic and for this I give full credit to the secretariat, led by Jack Reeves, and my co-chairman, George Miller. During that period, it met six times, including a joint meeting with representatives of the Uranium City Task Force and a two-day meeting in Wabush. During the meeting in Wabush, presentations were made to the Task Force by elected officials from the twin communities of Wabush and Labrador City, by the United Steelworkers, and by officials of Wabush Mines and the Iron Ore Company of Canada.

Representation on the Task Force itself was extremely broad and diverse. In addition to several departments of the federal government, all provinces and territories except Prince Edward Island were at one time or another represented on the Task Force, together with representatives from organized labour and the mining industry. An average of twenty participants attended each meeting and one might be excused for asking how anything was achieved at all by such a large group. There were, of course, the usual jokes about camels but, not surprisingly, a common threat does remarkable things to unify people's perceptions. Significant however in drawing the report together in a relatively short time was the prudent use of consultants, not only in the preparation of the initial discussion paper by Waldie, Brennan and Associates Limited, which provided a useful base for further discussion, but subsequent reports prepared by Dannis Management Ltd., S.M.

Janes & Associates Ltd., InterGroup Consulting Economists Ltd. and Bernice Martin.

One learns fairly early in life that before attempting to propose solutions to a problem one must first define the problem. And before we even attempt to define the problems faced by mining communities, we should also be clear in our minds what a mining community is. Here we perhaps have to employ our first oversimplification, because as we all know, each mining community, as with any community, has its own distinctive character. Nevertheless, mining communities have many common features, most notably those which contribute to their eventual difficulties. For a basic definition I quote from page one of the Task Force report: '...a mining community is one in which mining activities play a predominant role in the community's economic base, and are the principal raison d'etre for its establishment and continued existence'. It follows from this definition that, without the mining activity, such communities suffer calamitously and may even fold up completely.

Whereas the continued existence of mining communities is dependent on continued mining activity, this continuation of mining activity is dependent entirely on the continued presence of ore, and here I define ore as a mineral aggregate from which one or more metals can be extracted and marketed at a profit. While that may sound like a simple statement, the factors which determine the very existence of ore are extremely complex. These factors include production costs, available technology, taxes, environmental controls, and above all, and probably the single most important factor, the price obtained for the product. And because prices of most metals are now largely established by the marketplace, the fortunes of mining communities are irrevocably linked to the day-to-day trading in world metal markets. Unfortunately, therefore, if prices go down, ore is transformed by marketplace alchemy into mineralized rock and the mining operation may have to shut down. We saw this happen repeatedly during 1982. Mine closures and shutdowns occurred on such a massive scale that at one point it was estimated that more than half the total mining labour force in Canada was laid off.

The length of the shutdowns can of course vary tremendously, ranging from relatively short periods, wherein rising prices or cost reductions may work to transform rock back into ore again, to indefinite periods in cases where the mine is unable to regain its profitability. Short-term cycles are obviously more readily dealt with by mining communities, as they are used to the 'boom-bust' cyclical nature of the mining industry, assuming of course that a

boom always follows the bust. Long-term or permanent shutdowns are much more devastating, particularly if the community is not prepared for the announcement. Some communities can rebound if, for example, there is such a significant jump in the price of a particular metal that previously unfavourable economics can be overcome. This has been the case with many gold mining communities. Elliott Lake is another good example.

Ideally, if an orebody has definite limits, and if economic circumstances remain favourable, a mine and its attendant community can be planned for a specific life, and the eventual permanent closure can be dealt with in an orderly manner. Such was the case with Selco's South Bay mine in Ontario. Unfortunately, the exception to this kind of certainty and planning is more the rule, and shutdowns tend to result more from unforeseen circumstances, whether from economic factors or from difficulties in mining and processing the ore.

If it were possible to anticipate when each and every mining operation was going to cease operations, then planned phase-out would be relatively straightforward and community distress could be mimimized. Clearly we are unable to do this and therefore we must deal with the problem by developing and implementing a series of measures which will either forestall altogether or at least mitigate the effects of mine closures. As pointed out on page 21 of the Task Force report, we need clearly designed 'programs with well thought out criteria, so that appropriate responses will be forthcoming instead of ad hoc thrashing around'. Furthermore, it was recognized by Task Force members that these responses are not the sole preserve of government. Companies, individuals, and the communities themselves all have important roles to play in contributing to the important concept of 'shared risk', and its equally important corollary of shared preparedness.

In the short term, where a return to profitability for the mine and a return to relative prosperity for the community can be foreseen, programs are required to preserve or create jobs and maintain the trained work force in the community until the turnaround happens. We now know that such programs can be extremely effective, but initially, during the early part of 1982, the response to the effects of the recession was frustratingly slow, and useful programs were slow in getting started, demonstrating our collective ill-preparedness to deal with a rapidly deteriorating situation. The Task Force recognized early in its deliberations that short-term remedial measures were urgently required. Even before publication of its report, it had

made known its first recommendation, for immediate and urgent attention, that a program be introduced to permit mine workers who would otherwise be laid off to carry out meaningful job preservation projects at the mine site. Such projects as advanced waste removal, or development work, and geoscientific or mineral exploration activities, were seen to be of far greater long-term value than landscape beautification projects which constituted the bulk of early attempts at job creation in mining communities.

Changes to section 38 program guidelines however were not implemented until December. Nevertheless, successful job creation activities were carried out in a number of mining communities in Canada, particularly in Ontario, Manitoba, and the Yukon, many of them providing long-term benefit to the communities. Improvement projects (including refurbishing of schools) met with tremendous enthusiasm from the participating workers and served not only to provide meaningful employment and lasting assets for the community, but contributed immeasurably to maintaining high morale. Successful programs, however, require an adequate source of funds, which in itself requires an adequate state of preparedness. In addition to enriched unemployment insurance benefits, supplementary funding in Manitoba was provided from the Mining Community Reserve, about which I will say more later.

Undoubtedly the experience gained during the past two years has resulted in the development of effective programs which can be used to assist communities in the short term. For the longer term, the Task Force identified a number of measures which in themselves reflect some of the hard lessons for the future to which this seminar is targetted. All of these measures require our attention now, as we emerge from the current recession, rather than at some time in the future when we are confronted with the next one. In addition to the purely cyclical downturns, there is also great urgency to address the permanent damage inflicted by major structural changes on specific segments of the industry. For example, forecasts of reduced demand for certain metals and heightened international competition may well yet force marginal operations to close, given the uncertain price outlook.

For existing communities, there are a number of steps which must be taken. First, a set of planning scenarios can be developed which would envisage the likely consequences to the community of the eventual shutdowns of the mine.

Secondly, and inextricably linked to the first step, an assessment should be made of the potential and scope for economic diversification. There have been notable successes in economic diversification of former mining towns, albeit in some cases accompanied by a painful downward adjustment in size. Nevertheless, the communities continue to exist and thrive. A good example is Atikokan. In many cases, unfortunately, the results of the economic assessment will be negative or, at best, the scope for diversification will be much too limited to support the community at anything near its existing size. In such cases, remote location or harsh environment may well prove major stumbling blocks to establishing other activities that can provide the same employment levels and hence support the same population as mining.

Such, for example, was the sad conclusion in the case of Uranium City, in spite of suggestions of such schemes as establishing a prison, a military base, or a waste disposal site. As noted in the conclusions of the Steering Committee of the Uranium City Task Force Report:

> 'Investigation into economic redevelopment covered a broad range of options. Nothing was found that would replace the economic base that will be lost when the mine closes, or that would sustain Uranium City at anything near its present population. There are no long-term redeveloping opportunities which will support a viable community. Nothing will prevent a dramatic decline of Uranium City. The Steering Committee has concluded that efforts should not be made to artificially sustain the Town.'

Thirdly, there is a need as a matter of priority to accelerate and concentrate geological and exploration activities, using leading-edge technology, in the vicinity of existing communities. There is in fact no better form of diversification for a mining community than to discover more ore, preferably of a higher grade. In addition to focusing their own investigations, both levels of government can provide programs which encourage intensive exploration in the vicinity of communities. But the time to undertake this kind of programming is not when the ore is about to run out, (assuming governments are made aware of this fact), but at a time when the outlook for the mine is still relatively good.

Fourthly, and this point follows directly from the previous statement, there is a need to examine critically

where improvements can be made by companies in communicating and disclosing their plans to communities and to governments. In the Task Force report we recommended that such communication be on a frequent basis. Above all, the communication with the workers and townspeople must ensure ample warning of any potential difficulties and must be done in such a way that people do not feel betrayed or misled by company action. This is not to deny that hard decisions have to be made, and often it may be impossible to alleviate completely all the distress and disruption that follows from a mine shutdown. None of us on the Task Force, I'm sure, failed to be moved in some way by the impassioned presentation of Mayor Rose Wasylenka of Uranium City, made all the more dramatic in its counterpoint to the hard, dispassionate realities of the business decision. In such cases as Uranium City, the end result will probably always be the same, but there may be good and bad ways of arriving there. A collection of case histories documenting the steps taken, the methods used, and people's reactions would probably provide useful guidelines for the future.

One of the major impediments to determining and communicating future plans for a mine and its dependent community stems from the difficulty in precisely defining the likely life of the mine. To a company, the mine may have proven reserves for, say, ten years of sustained production, assuming all other factors remain in some sort of balance. As reserves are mined, exploration may well be so successful in finding sufficient new reserves that the mine continues to have a projected 10-year life. Or this figure may fluctuate, up or down, causing concern at times, or a more secure feeling at others. A community planner, on the other hand, may find if difficult to accept the notion of a firm life for the town of only ten years, even though in the past towns may have existed for fifty or sixty years with never more than ten years of reserves declared by the operating company. Nevertheless, when governments are called on to provide infrastructure in the form of roads, schools, hospitals, sewer, water, etc., imprecision in defining time frames causes extreme difficulty in reaching decisions on whether to invest public funds.

Events of the past, and particularly the last two years, have made us all that much wary about the future. Thankfully, the human spirit has great resilience and, while there has been and continues to be considerable human hardship brought on by the recession, people are still willing to take up the fight again and meet the challenges of the future head on, much wiser for the experience. New

ore reserves will be found, new mines will be brought into production and, unless these can be serviced from existing communities, either by road or by fly-in/fly-out arrangements, new communities may very well be planned and built.

We have seen how large scale townsites associated with a single mine are particularly vulnerable to mine shutdowns, especially when opportunities for economic diversification are limited or nonexistent. On the other hand, limited townsite development, as exemplified by the Selco South Bay mine, can be outstandingly successful, provided it is handled with the same high degree of sensitivity and openness by management and workers in the planning and operating of the mine from start to finish. Alternatively, fly-in/fly-out arrangements can work successfully for new mines found within reasonable distance of existing communities as in the case of Rabbit Lake. These types of arrangements will undoubtedly be used again as models for future developments, since both recognize the impermanent nature of many mining camps and avoid the problems experienced by large scale townsites.

On the other hand, where economic diversification is a reality and where a high degree of stability and security can be foreseen, new fully serviced communities will also be developed, but they will probably be rare. Tumbler Ridge has been cited in the Task Force report as an example of a new town which will serve as a regional centre for northeastern B.C. and will be supported not only by several coal mining projects, but also oil and gas exploration, forestry, recreation and other resource development.

Central to the entire issue before us is the human factor, comprising the complete range of social consequences resulting from mine shutdowns and the impact on mine workers, small business people, service industry employees or any other member of the community and their families. Of prime concern is the potential loss of accumulated wealth and benefits which individuals have accrued in the community. These include economic benefits, such as business or housing equity; for workers there is a number of other considerations such as pension benefits, seniority and leave benefits, and barriers to relocation and finding other employment. The Task Force examined this latter group of issues at some length and made three key statements in support of:

i the concepts of pension portability and early pension vesting;

ii the concept of portable seniority and leave provisions;

iii the certification of certain mining occupations (including miners and mine tradesmen) as journeymen occupations.

Without adopting or recommending any particular method or option for these measures, a number of alternatives were presented, and these may well add grist to the mill in the ongoing debates on pension reform and on skills certification and portability. Reference was also made to the proposed Bill 3 in Quebec which some saw as government intervention in the normal bargaining process, presumably in an effort to hasten the resolution of certain issues.

Loss of equity in housing or businesses was also discussed at length by the Task Force, as were mitigative measures to offset or prevent serious financial loss to homeowners and private business proprietors. A number of options were presented and, as with employee benefits, these in themselves provide a fertile area for further debate and resolution. For the homeowner, possible solutions include:

i complete subsidization of housing by the mining company;
ii commerical insurance against involuntary loss of employment and forced relocation;
iii a housing buy-back fund established by the company in newly established communities;
iv in communities where housing is already owned by mine employees and by people engaged in service industries, etc., a sinking fund could be established to reimburse groups according to some predetermined formula.

Integral to both of the last two options is the concept of shared risk. In the case of the buy-back option, employees and other residents would contribute to a fund which would be used to reimburse the homeowner for a portion of the value of the home, in the event that the mine closed down and housing values collapsed. This would essentially be a company controlled insurance scheme. It would not purposely provide full insurance and compensation to the homeowner, but it could be designed to minimize loss of equity and security. A sinking fund, on the other hand, could be established to similarly alleviate loss in existing communities, where residents have already contributed equity to housing. Payments into the fund would come from all parties, (employer, residents, both senior levels of government). All parties would also share an element of

responsibility in the event of collapse. Accordingly, compensation payments from the fund would not cover the entire loss, but as with buy-back idea, the payments would substantially reduce hardship experienced by the homeowner and greatly assist relocation elsewhere. Similarly, sinking funds or commercial insurance schemes might be applied to help offset private business losses in the event of mine closure. However, such considerations may be best left to the business community or even the individual entrepreneurs.

Ideally one might propose greater initiative by corporations, unions and individuals to concoct mechanisms or safeguards against loss. However, such initiative is regrettably not always present, and governments are ultimately called on to provide the cushion. To do so, governments must be sufficiently well funded to deal with crises, especially those which descend suddenly (and these days that includes most of them). It was with this in mind that the Manitoba Mining Community Reserve was first established in 1970. Thirteen years later it still stands as a practical model of what can be done, and demonstrates that there is at least one way of ensuring that resources are available when required. Futhermore, Manitoba's Minister of Energy and Mines, Mr. Parasiuk, has proposed (in December 1982 in Saint John) the establishment of a National Mining Community Reserve, financed by the federal and provincial governments and the mining industry. This Reserve would provide financial and employment support for those communities, their workers, and their families, faced with layoffs caused either by short-term cyclical factors or when the ore reserves of a mine become depleted. The proposal envisages a federal initiative in developing a formal mechanism whereby the beneficiaries of the mining industry set aside a certain percentage of profits or revenues during good years for application in depressed years. This would be a tangible way of giving effect to the concept of shared risk, and it would also be consistent with the philosophy repeatedly emphasized by the mining industry itself that profits in good years should be viewed in the context of the need to provide for lean years. Clearly, however, the differing interests and philosophies of the various parties concerned require careful consideration in determining a suitable mechanism by which such a National Reserve might be set up and operated.

In the case of Manitoba's Mining Community Reserve, which finds legislative expression in section 49.1 of The Mining Tax Act, up to 3 percent of mining taxes received in any fiscal year may be transferred by authority of the

Lieutenant Governor in Council to the Reserve, subject to a present upper limit of $5 million. Payments from the Reserve may be authorized by the Lieutenant Governor in Council, and here I quote from the Act, 'for the welfare and employment of persons residing in a mining community which is adversely affected by the total or partial suspension, or the closing down, of mining operations attributable to the depletion of ore reserves'. In the past, payments from the Reserve have been used to assist the communities of Wabowden after closure of the Manibridge mine; and Lynn Lake after Farley mine closed, and more recently, following a reduction in the labour force at the Fox mine. In the past year and a half, monies from the Reserve were used in support of job creation projects in Lynn Lake, Leaf Rapids and Thompson.

In the case of a mine closure, the Reserve is not seen as a source of funds to artificially sustain the community and its infrastructure if no alternative economic base can be identified. Rather, it would be used to provide transitional relief, to the extent that municipal expenditures cannot be reduced nor other offsetting revenues obtained; the objective is to bring communities to a level of expenditures and revenue where continued support from the Reserve is not necessary.

It can and probably will be debated whether the method of financing the Reserve is either adequate or equitable. Certainly, as a result of rampaging inflation, the adequacy of the present $5 million ceiling can probably be questioned, but only if first the method of financing the Reserve is shown to the capable of generating adequate funds. Based as it is on setting aside up to 3 percent of mining taxes collected in any year, it follows that, if mining companies do not pay significant mining taxes, for one reason or another, then contributions to the Reserve will be correspondingly low. This, however, may be a problem with the mining tax system rather than with the mechanism of financing the Reserve.

To recap, the Manitoba Mining Community Reserve does offer one tangible scheme for dealing with the problem of mining community distress and has proven itself to be a practical, workable method of ensuring funds are available when needed. No doubt it can be improved; or, there may be better alternatives but, whatever the eventual judgement, there is most assuredly a need for some mechanism to give us the required resources and responsiveness and avoid the 'ad hoc thrashing around' referred to earlier.

There are also important lessons to be learned from experience in other nations, especially those with extensive

natural resource-based industries, such as the Scandinavian countries or Australia. One example our attention has been drawn to is the Swedish system of Investment Funds, which essentially encourages companies during prosperous years to make a deductible allocation of profits to the investment fund, for later use in recessionary periods. The funds can be used to encourage earlier scheduling of planned projects, or for employment-creating projects. Mechanisms such as this are worth examining.

THE INDUSTRY PERSPECTIVE

R.P. Douglas
Senior Vice President, Operations
Cominco Ltd., Vancouver, B.C.

It is a pleasure to be in Kingston on this occasion to present my views on mining communities and the outlook of our company on their prospects for the future. One observation I drew from the topic of this discussion seminar is somewhat negative. It is this: the tradition of building mining communities - as was the common practice for a long time - is entering difficult times. This may suggest that the construction of new communities could become a thing of the past, but there will undoubtedly continue to be mining situations in the future which will merit so-called instant towns. However, as we shall see, it is becoming much more difficult to go that route.

In approaching a topic with a negative perspective one does tend to accentuate the more adverse, or unhappier aspects. In this preamble to our discussion , I will endeavour to offer a balanced view. I have lived in a number of mining communities, and through my job responsibilities I have had familiarity with other mining situations, altogether involving a fair number of different locations and individual characteristics. From this exposure I recall many of the pluses and minuses one experiences in mining communities and I hope I can draw an objective perspective from them.

If I may digress for a moment, I had one early lesson on life in a mining community which, in a way, speaks volumes. As a young engineer I had a job at Cominco's Tulsequah mining operation, in the top left corner of British Columbia. That was in the late 1940s. One day I was in the camp bunkhouse and I noticed that a miner had a 4-inch square piece of gunny sack tacked to the wall above his bed. When I asked the reason, he was quick to reply. He said, 'Once in awhile I run it through my fingers. When it starts to feel like silk, I know I've got to go out for awhile'. Of course nowadays we have remedies to prevent cabin fever - albeit some of those remedies are very expensive - but in the 1940s life was somewhat simplier, and maybe the miner's method of determining when he was getting bushed was just as effective as using a psychologist.

In my prepared remarks today I shall contrast two mining communities: the aftermath of one, and the outlook for the other. Before I do so, for those of you who are not familiar with our company, Cominco, I will offer a thumbnail sketch. Originally our name was the Consolidated Mining and Smelting Company of Canada, Limited. That was from 1906 to 1966, when we shortened it to Cominco. We are a Canadian company. We got our start in the Kootenay district of southeastern British Columbia, with our smelting operations at Trail being fed from several mines; then, beginning in 1909, from the great Sullivan Mine at Kimberley, about 200 miles to the east of Trail.

With an exploration program which has been continuous right from the start, in good times and bad, we reached out farther in British Columbia and other parts of Canada, and in the late 1920s ventured particularly into the Northwest Territories. The only practical means of doing this was by using float planes. We set up an aviation department, bought planes, and trained some engineers and geologists as pilots. By today's standards the aircraft seemed rather flimsy, but they were surprisingly sturdy and reliable. Our men flew north into unmapped territory looking for deposits. We were certainly among Canada's aviation - and northern - pioneers. As a recult of this activity, we developed two mining operations in the north. The first, our gold mine staked in 1935 at what is now Yellowknife, was followed by our Pine Point zinc-lead mine in the early 1960s. Both operations are still running. Of course, we had some abortive attempts at developing mines, such as the Box on Athabasca Lake, and the Ptarmigan and Ruth, a few miles out of Yellowknife. We are no different than any other mining company: it takes a thousand prospects to get a mine. Cominco has also expanded into other countries - into Denmark's Greenland Territory, Spain, Australia, South Africa and the United States.

Getting down to specifics, first I want to talk about a lead-zinc-silver mine which we brought into production in 1952 to augment our supply of concentrates to the Trail smelter. I refer to the Bluebell Mine, located in Riondel, on the east shore of Kootenay Lake. The Bluebell has a rich history. For any of you who are interested in that sort of thing, the first written record of the outcrop was made in 1844. Trappers had possibly smelted musket bullets out of high grade surface lead float before that time. William Randolph Hearst's father looked at the property. The property was staked in the 1880s and there was a murder over claim jumping. It was mined intermittently from the 1890s to 1927; for a time, by a company organized by a

French count by the name of Riondel, for whom the community was named.

Cominco bought the idle mine in 1931 and then, after World War II, developed a modern mining operation which was brought into production in 1952. When we went in there was not much there: a few old buildings of little use, some apple trees, a crude wooden marker stating Thomas Hammill was 'assinated' on the site in 1885 (the sentiment was OK but the spelling wasn't very good). And of course, there was one other asset, in addition to a viable orebody: magnificent scenery and, on top of all that, it was located on one of the best fishing lakes in British Columbia. We mined 4.8 million tons of ore over a period of 20 years until 1972, when the last ton was taken out.

In the 1940s and 1950s it was invariably assumed that, in starting a mine, a townsite or campsite would automatically be laid out. This was done at Riondel. The site was planned and water and electrical service were provided. A few houses were constructed for senior staff members who were expected to be transferred out at intervals. The balance of the houses were built and owned by employees, with assistance from Cominco. Employees largely built their own houses, often with much help from friends and neighbors. The wife of the accountant there at one time was a great cement finisher. A recreation hall and curling rink were constructed. Fire protection was provided.

It was an ideal setting. Waste mine rock was used for a breakwater, creating a sheltered marina. Fishing on Kootenay Lake is outstanding. With the kind of community spirit that pervaded this beautiful place, it was not long before employees developed a golf course, mainly with considerable inputs of 'sweat equity' by enthusiasts, but, as with most developments in a mining town, some help from the company.

At the start there was some bunkhouse housing, but the community gradually grew into a town of some 170 houses. Eventually, as is common to every mining area that has ever existed, the ore was depleted. As known reserves began to become exhausted, additional money and effort was expended on exploration, but the inevitable was upon us. By 1970 we were down to about two years' supply, and it was time to look to the roles of our company, the government, the union and the employees for the coming shutdown, and to answer the question, what of the community?

It was at this point we entered active discussions with those involved. For the work force, for employees not of retirement age and not considering early retirement, we gave opportunities to locate at other Cominco operations. In particular, our Fording coal mining operation near the Alberta border was just coming on stream, and many employees were relocated to this site. Others moved to our Trail and Kimberley operations, and to another mine, the H.B., nearer Trail. As a result, we were able to place practically everyone who wished to be relocated in other Cominco operations.

When we met with the people of Riondel we indicated to them we felt that, in that kind of location, a community could exist after the mine was closed. The homes and services were there, and of course there were the many attributes. It was obvious it could develop into a retirement community for people wishing that lifestyle. We polled our employees. About half wished to sell their homes. The other half wanted to hold on.

We entered into discussions with the regional district government which covered that area and, a number of times, with regional district and Riondel community representatives. As a result, we made available to the regional district, on behalf of the residents of Riondel, for one dollar, the water distribution system and the recreation complex consisting of a rec hall, curling rink and outdoor skating rink. We also handed over the fire hall, fire truck, first aid emergency facility and ambulance. In addition, for the cost of land taxes, we offered a lease of the beach and park and the part of the golf course on Cominco land with the proviso that the community would be responsible for keeping them up. The only string we placed on this was that it would be for the benefit of residents and not for resale to another party.

Of course we dismantled our headframe and buildings, sealed openings and fenced mine areas, planted grass on the mill site and many trees. We did a good job on clean-up. Today you need to look to see evidence of the mine.

Now, more than 10 years later, there are some 170 tidy, beautifully landscaped houses. Of the population, only a handful have jobs elsewhere. In addition to Cominco retirees, there are retired people from Alberta and Saskatchewan because they like the setting, the quiet and the climate. There is a small store, a coffee shop, a pub, and lots of group activity, including a thriving Lions Club. Garbage disposal at Riondel? No problem - an old mine opening will handle it for 100 years or so.

Riondel has been a relatively easy and satisfying experience in the aftermath of mining. We were fortunate that God placed the orebody in such an idyllic spot for people. However, the Lord is not as beneficent as to where He has placed other deposits.

This brings me to my other example. Pine Point, near the south shore of Great Slave Lake, is the community constructed in the early 1960s to service the mining operation at this location. It has been operating close to 20 years and is not finished yet. The majority of the people at Pine Point are living in houses and singles' apartments provided by the company, at low rents and with most of the services provided. Some employees are living in trailer courts; these people own their own trailers. As a result, the community is essentially one where people have moved in with the realization that some day the mine will run out of ore, and when that happens they will move on.

People who are not in the mining business tend to overlook that in mining communities it is recognized that ore will eventually run out and it will be necessary to move on. For some of those in the occupation of mining who do not like moving around it is a detriment, but one which can not be avoided. It is interesting to talk to people in Pine Point and ask their views about the community. They all recognize that it cannot be made into a retirement centre. There are no secondary industries, no logging, gas or oil. There is no government. As a tourist destination it would not rate one gas pump. The cost of maintaining a home is very high, upward of $8,000 per year. After a lifetime of work, it would not be a great place to relax and enjoy. As a result they feel that, when the mine runs out of ore, the community will shut down and cease to exist.

People who are in business in the town recognize they are at the same risk as the people who work there. It is a one-industry town and dependency on that industry is total. Some non-mining people feel this is wrong; it is not the way to operate. Or is it really wrong? We asked people at Pine Point, if we did it all over again, would you have preferred to have a fly-in/fly-out arrangement where you lived in Calgary or Edmonton and flew in to work for a period, then go out on leave? It is interesting that people who are there would far rather have a community, because most of them are family people with children, who want to be together. It provides for better family stability and lifestyle. (By the way, our Riondel employees weren't the only golf fanatics in our workforce - without much help from nature, our Pine Point people managed to put together an accommodation for the game of golf up at Pine Point.)

Let us take time and examine why people at Pine Point prefer a community type lifestyle. I believe it has something to do with access to the mine site. In order to make Pine Point viable, it was necessary to build a railroad and a highway to move the concentrates to market. Once this access was provided, people felt they could get out. If an employee felt the pressures of being 'bushed' building up, he could jump in a car and drive to Hay River, 60 miles away, or even Edmonton, 700 miles to the south. For those who advocate no more single industry towns, I can see problems as long as there is road access. I believe it only inevitable that people will gradually move in and set up, even if it is a ribbon development along the road. Then one is faced with the problem of uncontrolled development.

However, if there is no road access, a fly-in/fly-out arrangement may be a better solution. But let me raise two issues I wish to leave with you.

i The fly-in/fly-out arrangement attracts a special kind of workforce: the married couple whose children are all grown up and on their own, and the young person not yet married or married with no children. In actual fact at our Polaris mine on Little Cornwallis Island, 76 degrees north latitude - 900 miles from the North Pole - we have found this to be true. The married persons with a family finds the absences from home are too much to take. Some last 2 years, but a number cannot take that lifestyle for more than a year.

ii Canada and the west in particular was populated by people of adventuresome spirits, who had the incentive to take a chance, to go west and find their fortune. The only promise was a cheap train fare and some cheap land to homestead.

Canada has become a great country because it gave these adventuresome souls an incentive to move out of the comfortable cocoon of big city life and open up new areas. I am convinced that we must continue to encourage these adventurers to push back the frontiers. The fly-in/flyout arrangement will not foster the push back of the frontiers and the development of our more remote areas.

When I drove the Mackenzie Highway (for the uninitiated, that is the highway between Peace River and Yellowknife), I came to realize that this development was only made possible by those people given the incentive to try their hand at some 'stump ranching', and they have made parts of Peace River into some beautiful farmland country.

Just imagine if someone had ordained that the Peace River country was to be a fly-in/fly-out arrangement. It would still be a wooded countryside devoid of human settlement.

On balance, we can draw the conclusion that, as you go farther north in Canada, and the climate becomes more unpleasant, the fly-in/fly-out system becomes a preferable option, rather than trying to establish a community that may not have much in its favour.

It is interesting to note that the Minister of Finance in the federal government believes that nonsalary benefits provided to people living in communities in northern Canada should be taxed. This would lead one to think that the government is discouraging the establishment of communities, mining communities in particular, because of the so-called undesirable effect that, when the mine runs out of ore, the community will perish. Mining people feel that the formation of communities should not be discouraged in this fashion. A community is still needed in some isolated locations, because it provides by far the best lifestyle for the people who count: the people who work there. It is a cost to the industry and they are prepared to accept it. However, the government is making it even more difficult for new mining ventures to even consider a community. I think it is sad that in this way the tradition of mining communities, which have been of so much benefit to our nation, is probably dying and we will see in the future very few new ones.

I believe it is a mistake to swing so far in our thinking that the option for new mining communities is apparently being phased out. In certain situations, certain locations, and in certain cases, a mining community is the preferable option, on the understanding that when the mine runs out of ore the community will cease to exist. For a period of ten to twenty to thirty years, a community can exist and play an important role in the development of our natural resources in this country, providing opportunities and a good lifestyle for people, for employment, and revenues to all concerned.

I grew up on the prairies of Alberta and saw the demise of a number of the small towns that sprang up with the railroad. These communities, although now gone, still played an important role in the development of our country and its people. Likewise I believe mining communities have played a similar role and will continue to do so.

From the industry's perspective, we need a balanced approach. Canadians must not draw the conclusion, nor ensure by regulation, that mining communities should never again be built because of the fact of eventual abandonment,

and that the only way to operate is with fly-in/fly-out transient-type occupants. Both communities and fly-ins are viable options, and should be weighed with care. I believe the lesson to be learned about mining communities is that each has its own unique features, and must be judged on that basis and that basis alone. We must not let ourselves fall into the trap of generalizing and trying to develop a rigid plan for the development of mines. I believe that each situation has something unique about it that must be taken into consideration in arriving at a decision as to which way to operate. The fly-in/fly-out type of arrangement has become more common in recent years with the development of high-speed aircraft and reliability, but a price is paid in human values. The family unit, which has been one of the linchpins of our Canadian society, should be retained wherever feasible.

In closing, I feel strongly that there is room for both options. We know from the past that, if properly conceived and properly operated, both alternatives can be made to work and to work well. Let us not get trapped into thinking the good life is only available in Vancouver, Toronto, or even Kingston. Canada was built by people who took a chance. Let us make certain we do not cut off this opportunity to make this country of ours even greater than it is today.

THE UNION PERSPECTIVE: COOPERATION, NOT CONFRONTATION

Ronald MacDonald
President, United Steelworkers of America Local 6500
Sudbury, Ontario

Introduction

Unions have always accepted their responsibilities to continue to improve the working environment and the economic standards of their members. Our objective has been and will continue to be to secure a fair and reasonable share of what is produced. Accomplishing this goal has often been very difficult, because unions have not always been recognized as being beneficial to society, and have been subjected to harassment and attack from many sectors. In spite of these negative reactions, unions survived and have been instrumental in many progressive legislative changes, such as the abolition of child labour, improved pensions and medicare, safety and health legislation etc. These improvements and many others were beneficial not only to those who were fortunate in belonging to unions, but to everyone in society.

Today, the participation of unions is recognized as being a vital part of society, by governments, business, and other prominent organizations such as the major churches. In fact, the recent position of the Catholic Bishops and the many religious organizations of North America that the rights of workers take precedence over profits and everyone should be entitled to employment is a position that unions have always maintained.

Many of the accomplishments and improvements were achieved through confrontation and during very difficult situations, because of the attitudes of those in society who were in opposition to unions. However, we now have an opportunity to change this confrontational approach to solving the economic problems that face us today.

There are many concerns and there is much apprehension over the future because of the escalating changes our society will encounter in the immediate future. If unions are to fulfill their responsibilities, not only to their members, but also to society, they must ensure that they participate in the decisions that will be necessary. The opportunities must be available to allow government, business, and labour to participate in a cooperative effort to

solve the economic problems that we will encounter. It should be not only the Union's goal, but everyone's goal, to achieve full employment for everyone, and to provide every possible opportunity for achieving full individual potential.

If government, business or labour attempt to solve the problems by pursuing the various problems in isolation, they will fail. The priorities of labour must be job security, guarantees of maintenance of earnings, and facilities to allow retraining, not only of those who are employed, but also of the unemployed. Quite often, industry representatives have stated that industry must become more competitive by becoming more productive. They must realize that, to accomplish this goal, there must be guarantees to labour such as job security and a fairer share of what is produced.

We cannot continue to progress if we follow the example of the United States, where 4 percent of the families control 80 percent of the wealth-producing base, and another 6 percent control the remaining 20 percent; where 96 percent of new wealth produced by corporations is from borrowing on reinvested earnings.[1] A system that does not involve the participation or welfare of the majority will not continue to progress.

I can only speak for the mining sector, because of my many years of employment in this industry, and also my experience as a Union Officer for the past 11 years. The mining industry is no different than many other industries that are cyclical in nature because of the changes in supply and market demands. All too often, we have been involved in, participated in, or observed the layoffs and strikes of many thousands because of these fluctuations. Other factors that greatly influence the continual changes in employment are the depletable nature of nonrenewable resources, and, in many instances, the reliance on one industry to provide employment for an entire community or region. As a result, we create problems such as those in Uranium City, Bancroft and other areas where, if the industry closes, so then do the communities.

Dealing with the Problem in Sudbury

In 1982 in Sudbury, we faced a disastrous situation because the two major Employers - Inco and Falconbridge - an-

1. Sheldon Lush, Chairman and Chief Executive Officer, Supreme Aluminum Industrial Limited, presentation on April 21, 1983, to the Sudbury Chamber of Commerce.

nounced major permanent layoffs, combined with extended shutdowns of many months of the entire industry. We decided that there must be alternatives to the layoffs, and that solutions must be available to counteract the effects of the resulting high unemployment. It was obvious that, if we were to survive and continue to prosper, the Sudbury Region, which has a population of approximately 250,000 within a 100-mile radius, could no longer rely on the mining industry for employment growth.

We immediately organized a committee, chaired by Tom Davies; the mandate of the committee was to explore all of the alternatives to layoffs. The Committee was representative of the entire region, and included the Mayors from the municipalities in the area, Members of Parliament from the Liberal, Conservative, and New Democratic parties, representatives of the Chamber of Commerce, labour, industry, and the executive officers of the region. Although we were not all of the same point of view, and there were differences on how we should resolve the problems, we were able to work together and cooperate on the resolutions.

In the initial layoff of 850 bargaining unit employees at Inco (March 1982), we were successful in reducing the actual numbers to be laid off to approximately 185. This was accomplished by a cooperative effort that resulted in alternatives such as pension incentives, sabbatical leaves, increased training opportunities, job placement, and temporary make-work projects. Although the 850 jobs were lost, we were able to provide alternatives that were beneficial to the region and to the individuals.

A further layoff was announced in August 1982 of 1,050 bargaining unit employees at Inco, effective December 1982; almost simultaneously, Falconbridge announced a layoff of 1,100 employees. In addition, several hundred salaried mining personnel plus several thousand others in the region were unemployed because of the extensive layoffs. The Committee determined that, because of the massive unemployment and permanent loss of jobs, it was estimated that 4500 new jobs would be required to retain our previous employment levels.

We decided that our major objectives would be diversification and job creation for the Sudbury region. It was obvious that we could not rely on our two major, employers, Inco and Falconbridge, for increasing employment opportunities in the future. If we were to continue to progress as a region, and as a union, we had to provide alternatives for those who were unemployed and also those who would be seeking employment in the future. It was also imperative that we retain the younger people in our region, if we wished to continue our growth and stability.

Priorities

Our first priority was to determine the permanent employment plans of our major mining industry employers, Inco and Falconbridge. After many meetings, we were advised that the layoffs were permanent and that, at Inco, there would be a further reduction in the workforce totalling approximately 1500 during the next 5 years. It was apparent that this was a very different situation from experiences in the past, where, when markets improved, employment opportunities also improved. Instead, we were faced with the possibility of increased production combined with lessening employment. The hourly-rated workforce at Inco had been 18,000 in 1971; it was reduced to 8,500 in 1982, with further reductions planned at both Inco and Falconbridge in the future. In addition, there would be the terrible rippling effect of the loss of employment throughout the area because of the reductions in our base industry.

Our next priority was to establish a job creation and diversification program for the area. The job creation program had to consider specific areas such as short-term, mid-term, and long-term employment opportunities. The diversification program had to explore every possible avenue that would assist in creating an industrial and economic base that would not have to rely so exclusively on the mining industry. Meetings were reconvened, with all of the participants that had been involved in the previous layoff discussions. In addition, there were meetings with the other major organizations in Sudbury (for example: churches, labour councils, area municipalities, news media etc.) to advise them of the problems and to request their recommendations or assistance. Meetings were also conducted with federal and provincial government officials on many occasions.

Several Job Task Forces were formed, to examine possibilities in industry, business, agriculture, finance, health, mining, government, tourism, transportation and other areas. An office was opened to accept suggestions from individuals for job creation and diversification. We wanted the entire community to be involved, and the news media were very cooperative in advising the public of what was transpiring.

The Solutions

The office and Task Forces received over 300 suggestions; each one was individually acknowledged and processed. Ap-

proximately 33 were approved by the Regional Council and presented to the provincial government for consideration and support. Several other recommendations are being processed through other channels, or are still under consideration. Among the programs adopted are the following:

- the Land Reclamation (Greening Project) and others were initiated to provide hundreds of temporary jobs and at the same time to improve vast areas that had been damaged by smelter emissions;

- the union has been involved in many self-help programs to assist those who were displaced in their employment;

- a Tripartite Manpower Adjustment Committee, which is funded jointly by Inco and the federal and provincial governments, has assumed responsibility for job placement and mobility assistance. The committee is also very involved in determining the training requirements and facilities that are necessary to allow the advancement of each individual who wishes to take advantage of each and every possibility;

- a counselling program of one week's duration, completely funded by the provincial government, is available for each unemployed person in the mining industry. It determines their educational and employment experiences and assists with training and career guidance and employment placement;

- many programs are or were available through the union, such as a Family Assistance Committee (a joint company-union committee) to assist in financial or personal problems;

- a telephone hotline, and Unemployment Committee, to assist with any general problems that may have been experienced by any individual;

- anyone with alcohol or drug problems can be assisted by a permanent company-union committee;

- the region has been designated as an Industry Labour Adjustment Program (ILAP) area, and the Tripartite Committee, which is responsible for this program, is actively involved in reviewing permanent employment possibilities and training assistance programs.

There are many other programs already available, and several more that will be implemented as they are required. There is also a determination in Sudbury that we will accomplish our goals because of the sincerity and dedication of everyone involved.

Looking to the Future

Although there are ideological differences, everyone was and is continuing to work together, because we believe that this cooperative approach to our problems is the only constructive and positive way to succeed. We have tried the other approach, where each organization attempts to solve problems independently, and it has not been successful. We also realize that we are facing new and different challenges than we have in the past, and therefore our approach must be different.

Hopefully, Sudbury can be an example for other areas and can exemplify what can be accomplished if there is a collective approach to resolving problems, instead of one of confrontation. The determination and sincerity to succeed in Sudbury can best be illustrated by the many unpaid volunteers who are participating in the process. What is happening in Sudbury is not a unique situation that cannot be applied to other areas. It should be, in fact, considered as a blueprint to assist in the resurgence of our entire economy.

Morale is important in facing problems like those in Sudbury. To improve morale, an extensive media campaign has been arranged to provide information on the advantages of living and working in Sudbury. All too often, Sudbury is visualized as being a barren area without trees or vegetation, when it is, in fact, a beautiful area of lakes, streams and valleys that is inhabited by people from many races and religions; a place where the residents enjoy their involvement and participation in the community. However, the image of Sudbury has been tarnished, in part because of the lengthy strikes or massive layoffs that have occurred periodically. Unfortunately, this is not an accurate reflection of what transpires in Sudbury on a regular basis. It has, however, projected a negative concept of Sudbury that is not factual. We are therefore committed to a media campaign which emphasizes that everyone be aware that Sudbury is 'UNITED, STRONG AND PROUD...'.

If we are determined to revitalize and rebuild our economy, and if we are to progress, the first and foremost step that must be taken is to convince labour, government

and business that a cooperative approach is necessary and is the only logical solution. Each must function as an equal partner in the decision-making process for resolving our problems. There must be no silent or minority partners.

We must consider our needs. Our ultimate goal has to be full, satisfying employment as an individual right of every person. We cannot suppress certain sectors of society to give an advantage to others. Furthermore, we cannot be apprehensive about the future. What we require is an optimistic approach that is filled with confidence. Many have a fear of micro-technology because of the many changes it will bring. It is really not that different from the many changes that were encountered during the industrial age, or to any other employment crisis that we have been able to overcome and utilize to our advantage. Change may be occurring at an accelerating pace, but we can adapt, just as we did in the past when faced with various challenges.

However, today we are presented with many alternatives, in our industry and others, that we can take advantage of. We must provide training facilities now for those who are presently employed, to give them flexibility and permit their continued employment in the face of changing technology that will require many new skills. We must also provide sufficient training facilities for those who are unemployed and those still in the educational system, to provide them with the opportunities to utilize their full capabilities and to take advantage of those employment opportunities that will become available.

If one considers that the development of commercial steam power required 300 years, electricity required 80 years, nuclear power required 50 years, transistors required 10 years, and the laser beam required only 7 years, it is obvious that we must prepare for an escalating rate of change. If we fail to adapt, we will not be competitive and will deny each and everyone his or her basic rights to employment. We will deny workers the opportunity to improve as individuals, because they will not be allowed to develop their skills and capabilities.

If we can pay out millions to the 1.5 million unemployed and also additional billions to provide welfare, surely we can amend the Unemployment Insurance Commission regulations and other legislation to allow people to attend educational programs while they are on unemployment insurance, to improve their ability, knowledge and skill, and to be more competitive in employment opportunities. At present, we pay unemployment benefits and deny the individual his destiny by robbing him of his dignity. We discourage

his participation and involvement. The end result, after lengthy periods of time, is a feeling of rejection, frustration and hopelessness.

We must provide progressive employment legislation, similar to that in certain European and Asian countries (such Germany, Sweden, and Japan). Although our legislation on plant closures and layoffs is superior to that of the USA, it should be amended to ensure that every vacancy that offers an employment opportunity should be reported to the appropriate government ministry. If this were mandatory, we would have access to all information on all employment opportunities and job openings.

Plant closures or layoffs should require sufficient notice to allow for retraining and planning for alternative employment and placement. This would encourage participation by the individual and those affected or involved.

Reduced hours of work and earlier pensions with guaranteed earnings have to be recognized as requirements for the future, because of our shifting employment requirements from industry and manufacturing to the service sector. The West German government, for example, has accepted voluntary pensions at age 55, at 60-70 percent of earnings, as an alternative to layoffs. The portability of pensions will become an absolute necessity, because of changing patterns and the increasing tendency for each individual to be employed in several different jobs during his or her working career.

The mining industry and other basic industries must also accept the fact that they are extracting depleting resources that are irreplaceable. They should realize that because of this characteristic of their particular industry, they must be prepared to reinvest profits in permanent job creation. There should be a growth or development fund from the profits of these organizations that will be reinvested in creating additional employment opportunities in the respective regions where they are involved. The government should assist in encouraging the establishment and use of these funds by offering incentives for the development and diversification of mining communities, particularly in areas such as northern Ontario that do not have other sectors of employment or broader industrial or manufacturing base.

With this type of cooperative approach, we can reach our objectives of full, satisfying employment for everyone. Unemployment must be our major concern. It affects all Canadians, by increasing the burden on those that are employed and who must support the increasing numbers of unemployed. Unemployment prevents society from developing its full potential of wealth and welfare.

The social costs and effects of unemployment on a growing number of people is tremendous; they face the prospects of permanent unemployment and the loss of their human dignity. As an illustration, consider that for every one percent increase in the rate of unemployment in the USA there is an increase of 900 suicides, 700 murders, 4,000 admissions to mental institutions and 4,000 admitted to the penal institutions.[2] The initial response to being unemployed is one of resentment, withdrawal and depression. However, this can be quickly followed by one of stimulation and revitalization, if committees such as People Out of Work (POW) can be organized to assist the individual.

Unemployment is our number one enemy, and we must recognize it as such. We are now presented with an excellent opportunity to re-examine the entire system and to adopt an alternative approach to resolving our training, education and employment problems. It is an opportunity that may not be presented to us again.

We have a choice: to work together to resolve our problems, and possibly prevent or minimize a recurrence of those problems in the future. The alternative is to continue with the approach of the past, of waiting for an improvement based on an improved economy, and thereby committing ourselves only to whatever best serves our individual interests or priorities. If we can accept a cooperative approach whenever our democracy is threatened, such as in times of war, surely we should be able to accept this same approach when our economic survival is threatened.

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2. Barry Bluestone and Bennett Harrison, The Industrialization of America.

THE ATIKOKAN STORY: LIFE IN A SMALL COMMUNITY THAT SUFFERS ECONOMIC COLLAPSE

Dennis Brown
Reeve, the Corporation of the Town of Atikokan
Atikokan, Ontario

The Problem

When Steep Rock Iron Mines shipped the last load of iron ore pellets on 31 August 1979 and Caland Ore Company officially closed its operation on 30 April 1980, for all practical purposes 1,100 Atikokan residents were without jobs. This was a major loss in a town where the workforce amounted to approximately 2,000 people. It meant the loss of a $16 million annual payroll to Atikokan, and a reduction of 60 percent of the tax base.

A Brief History of Atikokan

In its earliest day, fur traders and loggers began settlement in the area. The construction of the south line of CNR ensured the permanence of the townsite, which is located 130 miles west of Thunder Bay and 90 miles east of Fort Frances, and is a divisional point of CNR. The population remained about a few hundred people, until the discovery of high grade hematite iron ore beneath the waters of Steep Rock Lake, which during World War II brought on the development of the Steep Rock Iron Range.

Important Dates, People and Events:*

1600s The Ojibway Indians were the first arrivals in the area.

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* note the promising aspects of Atikokan's development, in terms of potential for survival and diversification e.g., transportation and communication links, natural beauty, other resource industries etc. (editor).

1688	Jacques de Noyon, an explorer and voyageur, was the first white man who followed the route from the Kaministiquia River to Rainy Lake.
1731	Fur trade period - brought much traffic to the Rainy River District.
1801	Fur brigades travelling through heart of Atikokan-Quetico area. Lake names derived at this time.
1840s	American rush for the West led Simon Dawson to construct an overland route between Windigoostigwan Lake and French Lake.
1870-71	Gold Discovery - the Mine Centre area was located fifty miles from Atikokan. Start of mineral exploration. Gold discovery attracted many people.
1881	Dominion Government included Atikokan in the Manitoba boundary.
1889	Atikokan became part of the Ontario boundary again.
1899	The Canadian Northern Railway reached Steep Rock Lake. A townsite was laid out. Atikokan was founded. Atikokan is the Ojibway Indian word for 'Caribou Bones'. Appearance of Atikokan's first permanent residents, Tom and Anna Rawn. Atikokan Iron Mine - developing at the east end of Sapawe Lake.
1909	Quetico named in honour of Queticon, the Ojibway Spirit of Exceptional Beauty.
1920s	Logging camps started up. Known as the 'logging era'.
1934	The Canadian Northern Railway became the Canadian National Railway (CNR).
1938	An iron ore deposit was discovered at the bottom of Steep Rock Lake.
1939	Steep Rock Iron Mines Limited was incorporated as a company.
1942-43	Ontario-Minnesota Pulp & Paper Co. Ltd. logging and Jim Mathieu Lumber Company began operations.
1944	Steep Rock Iron Mines Limited began construction of roads for a new townsite in Don Park.
1945	The Improvement District of Atikokan was formally established by an Order-in-Council.
1949	Caland Ore Company was formed. An agreement was signed by the Improvement District with Northern Telephone Company. The telephone exchange was built and a complete phone system was established.
1950	The Atikokan General Hospital was opened.
1953	Atikokan was linked to Thunder Bay by Highway 11.

1954 The Municipality was incorporated into a Township.

1955 Another link with the outside world was established when cable television was introduced to Atikokan.

1956 The Township purchased the local power distribution system from Ontario Hydro.

1957 The Atikokan Township Police Department was formed.

1958 Quetico Centre was started by a group of businessmen.

1959 Caland Ore Co. initiated its open pit mining operation.

1965 Highway 11, west to Fort Frances and Winnipeg was officially opened.
Ore processing and a pelletizing plant became operation at Caland Ore Company.

1966 The Atikokan Centennial Museum opening took place.

1967 Domtar entered into an operating agreement and assumed management responsibility for Jim Mathieu Lumber Company Limited.

1968 The A.E.K. Bunnell Park was approved for developing for camping and recreation.

1970 The Ministry of Northern Affairs opened a branch office in Atikokan.

1972 Caland Ore Co. announced that it intended to close in 1976.

1973 The Ontario Government announced that Quetico Provincial Park would be designated as a primitive park.

1974 The Atikokan Municipal Swimming Pool (indoor) was opened for operation in 1974.
Atikokan celebrated its 75th Anniversary with many activities, including home-coming days.

1975 The new 25-bed Atikokan General Hospital was officially dedicated on December 12, 1975.

1975 The Atikokan Municipal Airport officially opened in October of 1975.

1976 The Caland Ore Co. continued to operate past its expected closure date.

1976 The Atikokan Little Falls Community Centre was opened, with curling, golfing, dining.

1976 The twenty million dollar particleboard plant of Pluswood Manufacturing Limited went into production.

1979 The Historical Park Museum officially opened August 15, 1979.

1979 The Pellet Plant at Steep Rock Iron Mines ceased operations August 31/79. The Pit was officially closed February, 1979.

1980 Caland Ore Co. Ltd. closed the Pellet Plant April, 1980. The Pit was closed November, 1979.

1981 Domtar taken over by Buchanan Forest Products Inc., of Thunder Bay March 2/81. Name changed to Atikokan Forest Products Limited.

1981 Official Opening of Caland Manor October 17, 1981. This was formerly Caland Guest House and was donated to the Atikokan and District Association for the Mentally Retarded by Caland Ore Ltd. as a residence and training place for the handicapped.

1981 Construction of the Industrial Mall.

1981 Opening of Wittler Wood Products, a division of Hemiwood Ltd., and Tuff-Craft Products, a division of Better Deal Woodworking and Construction Ltd., both based in the Industrial Mall.

1982 March 30, 1982 - Seven-digit dialing went into effect in Atikokan and Sapawe.

1982 April 16, 1982 - Official opening of Atikokan's Industrial Park and Mall also the official opening of the new Tourist Information Centre at the junction of Highway 11 and 11B.

Population of Atikokan

Year	Population
1950	2,074
1955	5,286
1962	6,336
1965	6,310
1972	5,841
1973	5,742
1974	5,574
1975	5,446
1976	5,709
1977	5,781
1978	5,773
1979	5,162
1980	4,703
1981	4,636
1982	4,744

Why Closure of the Mines?

Mineralized ground doesn't become ore unless it can be extracted and processed to produce a certain amount of profit. Steep Rock Iron Mining (SRIM) and Caland, according to their managements, were reaching the point in the early 1970s where such profits could no longer be realized. There was a number of reasons for this situation: for example, the red hematite ores of the Steep Rock Range do not possess the best physical or chemical properties for low-cost processing in modern smelting facilities; meanwhile, to the south in the USA, low-grade taconite ores were being pelletized, and the final product was superior to the Steep Rock ores.

Consequently it became evident that the open pits at the mine, originally considered 'inexhaustible', were actually nearing their economic limits. Attempts to mine by underground methods the millions of tons of ore that lay beneath the open pit floor were unsuccessful. After SRIM had tried every known mining method, the three underground shafts and mining levels were finally abandoned.

The Social and Economic Climate Before and After the Closure Announcement

In 1972, when Caland first announced that it intended to close in 1976, the economy in Atikokan remained healthy and stable. For several years the mines continued to work at a steady pace, and in fact Caland actually expanded in 1976, when it announced an extension of its operation. Other items that helped maintain a healthy climate included the opening of the Pluswood plant and the Ontario MNA office, and new jobs at Great Lakes Forest Products. Business increased each year over the previous year, and continued to increase up to 1980 when the mine finally closed.

The 1972 closure announcement had little social impact in terms, for example, of alcohol and drug use. Some workers opted to move elsewhere to work at new or expanding operations, while others began planning career alternatives, such as with Pluswood. In addition, the construction of a thermal generating station has required about 1,000 workers each the past 2 summers. It is still not known whether Ontario will operate the station or mothball it.

Public Reaction to Shutdown Decision

The American-owned company, Caland Ore, had a history of contentious labour-management relations in its earlier years, but relations improved in its last five years. Some Atikokan people had been suspicious that Caland would 'sneak out', take everything possible, and leave nothing for the community. However, Caland did not confirm these suspicions. The company has offered skill training, counselling for retraining or early retirement, and is exploring resettlement options for securing employment in its operation in the USA.

Steep Rock Iron Mines has been traditionally viewed as a company that cares, although this view changed somewhat in the final years of its operation. Some workers felt betrayed, because they had been told in 1940s that the reserves of ore would last for 100 years, while others give the company credit for going far beyond the call of duty to stay in business as long as it did. A few people were retained by Canadian Pacific Enterprises (Canadian Pacific Investments is the major shareholder in Steep Rock). SRIM provided some job-skill training and talked about possible developments at Bending Lake and Lake St. Joseph.

The Formation of Citizen's Groups

The 1972 announcement of Caland's expected closure in 1976 did not cause much immediate concern, possibly due to alternative employment opportunities at Pluswood, Great Lakes, the MNA office, and the Hydro generating station. However, it did lead to the development of two citizens' groups:

i AID (Atikokan Industrial Development);
ii ADC (Atikokan Development Committee).

In addition, there was an upsurge in the efforts of the local Chamber of Commerce, and effective promotional campaigns were conducted within the Northwestern Ontario Associated Chambers of Commerce, to lobby the provincial government on behalf of Atikokan. Approaches made to various provincial and federal politicians, and AJAMPAC (Atikokan Joint Manpower Assessment and Planning Committee) was established, with federal and provincial support.

The United Steelworkers has always been active in Atikokan, and in support of their members they increased their activities at this time. For example, they joined AID and began to lobby all levels of government for more effective action to offset the mine closure.

The AID Committee

The Atikokan Industrial Development (AID) Committee was formed in February 1973, and continues to meet twice a month. It promotes industrial development in Atikokan, and was for example instrumental in getting the Ontario Hydro thermal generating station located in the area. The committee has contributed to the unification of the town, although it has encountered some problems with confidentiality regarding industrial inquiries. Many citizens fail to understand the need for confidentiality during the negotiating process.

When the lay-offs began, many people felt AID was not doing its job. As a result, and with the cooperation of the Atikokan Council, AID set up a seminar at Quetico Centre which was able to forge a united community leadership with a common purpose: 'Atikokan is a town that wants to stay alive. The people of Atikokan like living there and they want to continue to live there. They are willing to work hard to keep the town going.'

The CBC Incident

Arrangements were made for the CBC to come from Winnipeg to do a television documentary about Atikokan. A well-done television program was seen as a way to publicize Atikokan's situation and, hopefully, to get government concern and action on Atikokan's behalf.

Not everyone was in favour of the program; some feared that a negative impression might result. However, it worked out well. The program, 'Atikokan - after 75 what?' presented a fair picture of a troubled town willing to work to survive, with a positive spirit, good resources, and many attractive amenities. In such troubled times, it was apparent that: 'you have to accentuate the positive but not hide the negative'.

Working with the Provincial Government

Atikokan Council undertook to get key people in the provincial government to see that:

i Atikokan had the potential to overcome the mine closure;
ii Atikokan could be a model for learning about how to cope with sudden economic disruption in single-industry town.

Council was not asking for handouts from the provincial government. Rather, it presented the future hopefully, tirelesaly, and relentlesly. Council downplayed confrontation politics and worked with people in government cooperatively and with mutual respect.

Strengthening Community Amenities

The 1974 seminar on diversification potential pointed out the basic community amenities needed to attract people and industry to Atikokan. A sound financial base had been maintained through the 1950s and 1960s, and the community continued to stick to a pay-as-you-go policy. As a result, many potential community amenities were never built. However, a number were acquired on this basis, including:

i an indoor swimming pool;
ii an arena with artificial ice;
iii a new hospital;
iv a sewage treatment plant (1978);
v a municipal golf course;
vi a municipal airport;
vii an overnight camping facility;
viii a new museum;
ix a senior citizen drop-in centre;
x a new ski chalet was built.
xi upgarding of parks and recreation areas;
xii the Official Plan was adopted;

All these facilities indicated the community's potential for a healthy future.

Creative Tapping of Government Help

In 1978, the need for a professional economic development commissioner became evident. The Ontario Ministry of Northern Affairs (MNA) entered a cost-sharing agreement, agreeing to put up $2 for every $1 from the town, to annual maximum of $75,000 (to the town's $37,500) for a period of 5 years. This agreement has recently been extended for a sixth year, and we are working on something more. MNA also contributed funds for consultant reports (e.g. tourism potential, particleboard industry potential, an industrial park site, and building of an industrial mall). The province also hired a transition counsellor to help people adjust to the social and psychological impact of the mine closures.

Federal government help came in the form of a program involving the Manpower Consultative Service of the Department of Employment and Immigration. This program generated the required $37,500 for the first 2 years of the MNA agreement.

Problems Currently Being Faced by Atikokan

1. The community has lost $6 million from its tax base, as a result of the closure of the two mines. All of this is in the form of commercial assessment. In 1979 only about 33 percent of the tax base was from residential assessments; in 1983, 64.79 percent of the total tax base was residential.

2. Before the mines closed, there was an increase in tax revenue as a result of the opening of Pluswood Manufacturing. Pluswood came on stream ahead of the closing, and provided extra funds to the township over the transition period. As a result, the general mill rate was kept low.

3. Atikokan's mill rate has not increased as much as that of other northwestern Ontario communities. For example:

	Combined Mill Rate 1980	1983	Difference from 1980 to 1983 (percent)
FORT FRANCES:			
Residential	156.610	211.86	55.25
Commercial	184.180	249.25	65.07
ATIKOKAN:			
Residential	108.78	157.62	48.84
Commercial	127.98	185.44	57.46
DRYDEN:			
Residential	188.142	253.615	65.473
Commercial	221.813	298.370	76.557

Because Atikokan residents have not become accustomed to large increases in the mill rate, they may not readily accept the fact that Atikokan now needs a large increase because of its altered situation. They resent the fact that, for example, Atikokan's mill rate increased approximately 15 percent from 1980 to 1981, while Dryden only experienced a 9.67 percent increase during the same period.

4. The pay-as-you-go policy needs to be questioned, even though it does have merit. This policy is creating some problems in Atikokan with the present situation, where there is a declining tax base combined with the need for improved services in the infrastructure. Needed improvements include:

   i sanitary sewer main rebuild. This came up unexpectedly, and could cost as much as $8.2 million. The cost to the taxpayers could be $2.2 million (27.4 percent) (less an MNA grant of 400,000 to date);

   ii storm sewers;

   iii streets and roads rebuild, one year after sewer installation (total cost estimated in 1978 dollars $2 million).

   iv water filtration plant, with an estimated cost to the Atikokan taxpayer of $463 per household x 2,000 households = $925,000.

5. The more stringent regulations now being applied by the provincial Ministry of the Environment, combined with the original poor construction of the infrastructure, now mean added expense to the Township of Atikokan.

6. The balance in the use of the public library and the recreational facilities has changed; now there are more golfers, skiers. This may be partly due to the arrival of the Hydro employees, but is also due to the fact that people who are unemployed or underemployed have more leisure time.

7. Many people have been 'lost' to the community; others could not afford to go anywhere, because they were not permanently employed or were underemployed. Still others left, tried jobs elsewhere, and came back to the northern Ontario lakes and the access to free recreational facilities that make Atikokan very attractive.

8. Many families are still going through stressful situations. Two years is not a very long time to find a new career in today's economic climate.

9. Atikokan must, with the assistance of the provincial government, ensure that there is an adequate and continuing wood supply for the forestry operations. There has been a considerable increase in this activity since the closure of the two mines. Probably the most pressing problem now is the need for Atikokan Forest Products (fomerly Domtar) to be assured that they will have wood to continue to maintain their operation at Sapawee. This operation provides employment for approximately 250 people.

10. More attention needs to be given to promoting tourism, which is now the number two industry in the area. The provincial government needs to work with the local municipal government in ensuring that as much as possible is done for local tourist outfitters, who are mainly Atikokan citizens.

11. The future of the Ontario Hydro thermal generating station is in doubt. Due to lack of growth in electrical demand, it may not be economic to operate the plant once it is commissioned in late 1984. If it doesn't operate, 100-125 jobs will be lost.

12. The general decline in the economy of the world has not helped Atikokan's situation.

13. Atikokan is unable to get the federal government to provide a customs offical for its airport. This reduces opportunities for both tourism and business, since it makes it impossible for Americans to fly directly to Atikokan from nearby states.

Summary of the actions Atikokan has taken since the mine closed

1. Energy conservation policy - the community reports monthly on this policy. Its goal is a 20 percent reduction in energy costs. We are looking at present buildings to see if they are being used for what they were designed.

2. Ongoing attempts to attract new industry - e.g. the AID Committee, the Industrial Mall, and the ADC.

3. Economic Development Officer - MNA umbrella agreement, Tourism Co-ordinator, tourist information building, and Pluswood expansion.

4. A five-year plan for streets and roads and for the sewer rebuild is being formulated.

5. A Council seminar was held at Quetico in January 1981 to formulate plans for the next two-year session of the Council.

6. A Transition Counsellor was hired to assist people in need, provide confidential advice, and operate an information centre.

7. AJMPAC was created to help people find employment; welding schools and carpentry courses have provided opportunity for local people to obtain a skill.

8. Ontario Hydro is presently constructing a thermal generating station near Atikokan. The first phase of this is to start up in 1985. Atikokan needs the assistance of the provincial government to see that there is no change of these plans. Rumors are continually circulating about a change in these plans.

9. A Federal Task Force has been created for Atikokan. Unfortunately this group only held one meeting in Atikokan and since then nothing has developed.

10. The Township applied to government agencies for assistance, and received a positive response in particular from the Ontario Ministry of Northern Affairs.

Conclusion

> 'Atikokan is a town that wants to stay alive. The people of Atikokan like living there and they want to continue to live there. They are willing to work hard to keep the town going.'

The above words, taken from The Atikokan Story, express the reasons why the town of Atikokan has continued to exist and will continue to exist, in spite of the loss of its two major employers in the late 1970s. There are many obstacles to overcome, but where the will of the people is great enough, single-industry towns will somehow continue to survive in northwestern Ontario. However, in order to do so, these towns must have the full assistance of the provincial and federal governments.

APPENDIX I THE ATIKOKAN JOINT MANPOWER ASSESSMENT AND PLANNING COMMITTEE (AJMAPC or JAMPAC)

Summary of Activities - (20 June 1978 to 31 March 1982)

1. Financing of the Committee.

   The Committee's makeup was dependent on 100 percent participation by all sectors of the Atikokan business, labour and social spheres of activity. Not only was this support required in the form of personal involvement but it had to be reflected also in financial assistance. This required the Chairman to act as a fund raising committee and, with the assistance of the Canada Manpower representative, this initial step was successful.

2. Assessment of the situation and development of a general plan of action.

   Once determined, the Committee followed this closely. The program was, of course, governed by this Memorandum of Agreement with the federal government that placed restrictions on the manner in which federal funds could be expended.

3. Recognition by the Committee that its function was to lay a base for the future survival and rehabilitation of a community that obviously no longer could depend on a major industry (mining) to sustain its workforce or financial structure.

   Unfortunately this did not present an immediate solution to the hundreds of steelworkers from the mines, and it was difficult for these people to appreciate the efforts of the Committee to map a long-range program when there were so many immediate problems. It should be noted, however, that with the encouragement and assistance of Canada Manpower and the Provincial Ministries, the Committee did involve its activities in areas that were of some immediate assistance to the workforce of the community.

4. Assessment of all the information on the Municipality that would serve as a community profile and enable an economic strategy to be developed.

   Using the Quetico Centre as a base for this study, its Director as a chairman of the subcommittee and the Ministry of Northern Affairs personnel to

assist in the fact finding, the Committee was able in a very short time to determine its course of action.

5. The immediate problem of finding employment for the mine workers as they were terminated and as their unemployment insurance benefits came to an end, was followed closely by the Committee.

   A joint management-labour committee was formed at both Steep Rock Iron Mines and Caland Ore and these committees did an outstanding job in cataloguing the skills available and finding job opportunities throughout the country for the laid-off workers. The JAMPAC Committee also recognized that such a program deleted the most able and best qualified workers from the town's workforce and this had to be an important factor in the long range plans.

6. Commissioning of a community profile study that would give an up-to-date picture of Atikokan's resources in all phases and areas.

   The Committee's decision was that the fastest and most desirable course of action was to utilize the services of the newly-hired Township Economic Development Commissioner's Office to make this possible. As a result the Committee budgeted funds that resulted in a complete study of the available workforce, an up-to-date and an in-depth picture of the Community Profile, which pinpointed the lack of serviced industrial land and the condition of housing. This major objective was accomplished faster, and with the involvement of those most concerned with Atikokan's future, than had the Committee utilized the services of an outside professional consultant. Furthermore this information was continually updated and will continue for long after this Committee's term of office.

7. The involvement and participation of the Federal and Provincial governments at all times was recognized as a primary factor by the Committee.

   This was made possible by the representatives who attended the Committee meetings and were at all times aware of the Atikokan situation. The Township Municipal Council, which had initially financed and launched JAMPAC, continued to lend financial aid and to support the numerous recommendations that the Committee presented to it.

8. The Committee commissioned also the development of an inventory of investment opportunities that covered a broad spectrum of industry and identified approximately 100 opportunities.

The importance of additional industrial land was recognized by the Municipality in its purchase of the Firestone building and the development of the Industrial Park. Much of the initial work on the latter project was done with volunteer labour and loaned equipment. It was just another example of the Atikokan citizenry determination to help themselves and keep their town alive.

9. Commissioned a feasibility study of investment opportunities and also an inventory of investors.

As a result, the Atikokan Development Corporation was formed.

10. Commissioned an in-depth study of the feasibility of establishing a knock-down particle board furniture factory which would obtain its raw material supply from Pluswood Manufacturing.

The study was broken down into three phases and indicated such a project could be feasible. Serious discussions were held with interested firms and no doubt there could have been a favourable outcome for this project had not the economic picture of the country as a whole, and the woods industry in particular, made it difficult to bring to fruition.

11. The recommendations of both the Steep Rock and Caland labour-management sub-committees in the matter of training were given close attention.

The Committee investigated the possibility of establishing training courses to upgrade the skills of unemployed workers. As a result, highly successful welding and carpentry courses were established through Confederation College and the training branch of the consultative services of Canada Employment and Immigration. The Committee considered many other agencies of training but these efforts for the most part were unsuccessful.

12. The Committee was aware of activities by other agencies that further improved the industrial assessment of the community's possibilities. Some of these included the following important projects:

a) Steep Rock Iron Mines financed an assessment of clay deposits that overlay the iron ore at the bottom of Steep Rock Lake to determine the clay's suitability for pottery, brick and clay manufacturing. It was determined that the clay was suitable for tile and brick and, to a lesser degree, pottery.

b) The Ministry of Natural Resources completed a study of the extent and nature of the wood supply in the Atikokan area. This study was instrumental in Pluswood's decision to expand its factory and provide additional jobs.

c) The Ministry of Northern Affairs funded a study to determine the potential for expanding tourism trade. As a result the Atikokan Chamber of Commerce, with assistance from the Ministry of Northern Affairs and the Township Council, hired a Tourism Officer for Atikokan. A tourist information bureau was also established on Highway 11 at the junction of the road into Atikokan and a program of visitations to American cities lined up for promoting the area.

d) Through the efforts of Paul McRae, M.P. for Thunder Bay-Atikokan, a top level federal task force (Cabinet level representatives) was established to make recommendations with respect to Atikokan.

13. Early in the work of the Committee a recommendation by the Caland subcommittee was given serious consideration. It was the suggestion that an air-commuter service might make it possible for unemployed miners to work at nearby mines and still retain their homes in Atikokan. This suggestion was endorsed by the Committee and received unqualified support from the local Steelworkers union leaders. The Committee assisted in the preparatory work and contracted mines and forestry operations in the area to determine the feasibility of the suggestion. The final inclusion pinpointed the UMEX mine at Pickle Lake as having the only real possibility of a successful venture. The experiment was initiated and the details are elaborated on in another section of this report.

14. The social impact on the community as a result of the closing of the mines was recognized by the Committee.

This was further emphasized by Dean Ralph Scharf, of Confederation College, who suggested professional advice and assistance should be given to the families faced with the loss of longtime employment and a home they had considered permanent. As a result, the Committee recommended that the municipality should enter into an agreement with the Ministry of Community and Social Services to provide what was known as a 'Transition Counsellor'. This was finalized and the Committee appointed a sub-committee that hired a local applicant and detailed the Counsellor's terms of reference. The Transition Counsellor reported to the subcommittee and also attended the main Committee meetings. She established a direct link between the people and the Committee and compiled social data relevant to the impact of the closure of the mines on the community. She gave a valuable service to the people and proved to be both understanding and able to give the direction required, in all an excellent choice. The work of the Transition Counsellor has been completed but it is hoped that her report, which is an appendix to this report, will be of material assistance to other communities faced with a similar situation.

15. An important aspect of the Committee's function was the monitoring of the effect of the construction of the Marmion Lake Generating Station by Ontario Hydro.

The delay in the construction schedule of the station and the earlier closure of the mines than most people had anticipated was a factor that affected the Committee's planning and decisions. However, Ontario Hydro and the Municipality had signed a joint agreement that, among other matters, had earmarked approximately 1.25 million dollars in Hydro funds to soften the impact on the community as a result of the construction of the Station. A supplementary agreement had detailed an ongoing community study that provided an annual assessment of both social and physical changes to the community. This information was available to the Committee and liaison was established as the Chairman of the JAMPAC Committee was also, by coincidence, the co-ordinator between the Municipality and Ontario Hydro.

16. This summary should also include the many negotiations and liaisons that were required by the Committee to make the various projects possible. The budgeting of funds was also an important function of the Committee. Finally the faithful attendance by the volunteer members of the Committee and the governmental representatives at the 44 regular meetings, supplemented by numerous sub-committee and miscellaneous meetings, must also be recorded.

History and Background

Atikokan, a name of Ojibway origin and said by the local Indians to mean 'caribou bones', was born in the late 19th century and early 20th century.

The early fur traders and loggers, together with the construction of the south line of the Canadian National Railway, ensured its permanence on the maps of our country. Located 130 miles west of Fort William (now Thunder Bay) and 90 miles east of Fort Frances, the town was established as a divisional point on the Canadian National Railway. And so it remained, with a population of a few hundred people, until the discovery that high grade hematite iron ore (long suspected of being there) actually lay beneath the waters of Steep Rock Lake, just a few miles north of Atikokan.

The advent of World War II, and the urgent necessity of the Allies for a new source of iron ore, ensured the development of the Steep Rock Range - and at the same time a change in the status of Atikokan from a small village to a busy mining centre of up to 7,000 persons.

Developed by the government as a model community under the status of an Improvement District during the early years of mining development, the town achieved self-government in 1953 and became the Corporation of the Township of Atikokan. As such it had an elected Reeve and four Councillors (increased to six in the later years).

With the shipment of the first ore from Steep Rock Iron Mines in 1943 and later the addition of a second large mining company, Caland Ore Company Limited, to the Steep Rock Range, the workforce of the mines totalled some 1,000 persons. This solid base was augmented by the logging and lumber industries in the area (Domtar Forest Products and the Boise Cascade bush operations) and a fledgling tourist business, made possible by the game and fish potential of the area and the wilderness canoe country of the famous Quetico Park. By the 1970s Atikokan was indeed a

model community with its paved streets and recreational facilities, the envy of much larger towns.

However, the mining game is a fickle one, and events were developing that foretold a change in the orderly life of Atikokan. The rich hematite ore of the Steep Rock Range, so desirable as a direct-shipping ore during the war years, no longer met with favour from the steelmakers of both the United States and Canada. To the south, the low-grade taconite ores were being pelletized and the final product was far superior to the Steep Rock ores. Both Steep Rock Iron Mines and Caland Ore constructed pellet plants to meet the competition of the low-grade ores.

Caland Ore (a subsidiary of Inland Steel) shipped all its ore to the United States, while Steep Rock Iron Mines shipped 90 percent to Algoma Steel and 10 percent to Detroit Steel. By the early 1970s it was obvious that the 'inexhaustible' open pits of the mines were nearing their economic mining limits. Attempts to mine by underground methods the many millions of tons of ore that lay beneath the open pit floors had failed. Steep Rock, in particular, had tried every known mining method and the three underground shafts and mining levels were finally abandoned.

As a result, the AID (Atikokan Industrial Development Committee) was set up by the Municipality. Through the initiative work of this committee, Pluswood Manufacturing Limited erected a particle board plant in Atikokan, and the harvesting of hardwood (popular) resulted in employment for 140 persons.

At the same time, Ontario Hydro was planning the expansion of hydro power for Northwestern Ontario. Atikokan was not one of the areas under consideration, but the Municipality, with the vigorous support of its people, made a presentation to Ontario Hydro that resulted in the decision to build the Marmion Lake Thermal Generating Station at Atikokan rather than at one of the several other sites initially considered.

The schedule of construction for the Hydro Station and the closing of the mines appeared to complement each other and it was anticipated that this would minimize the impact on the town occasioned by the loss of its main industry.

Unfortunately, a series of events drastically changed the situation. The power usage demand in the Province of Ontario failed to reach the forecast figures and Hydro was forced to curtail, and even eliminate power generating sites already planned and, in some cases, actually under construction. In the case of the Marmion Lake Generation Station, construction of the first two units was delayed and that of the third and fourth for the time suspended.

At the same time, Steep Rock Iron Mines was forced to accelerate the mine closure and the last load of iron ore pellets left the mine on August 31st, 1979. For all practical purposes, the town workforce was reduced by some 600 persons.

Subsequently, Caland Ore also officially announced that its operation would be closed and on or about April 30, 1980, the mine was completely shut down and 400 more persons were thrust upon the labour market.

Ontario Hydro originally had planned to bring its first 200 megawatt Marimion Lake generating unit on stream by 1983, but the delays mentioned previously had set this target back to late 1984. In February, 1982, Ontario Hydro definitely cancelled construction of the second 200 megawatt unit, as the demand for power in Northwestern Ontario had slowed down to the point were extra power, if required, could be supplied by cheaper means.

This will not materially affect the permanent Ontario Hydro workforce as the second unit would not have required more than 25 additional employees. However, it will eliminate the anticipated boom of further construction starting in 1985.

The 1973-74 Council of the Municipality, as mentioned previously, had heeded the warning of the possible demise of the Town's major industry and had recognized the importance of supplementing it with secondary industry.

The formation of the Atikokan Industrial Development (AID) Committee, under the leadership of a most active and persistent Councillor, Murray Goodwin, had resulted in the Pluswood Manufacturing plant. This Committee has continued to attack the problem of attracting alternate industry to Atikokan to this day. Their efforts were augmented by the appointment in October, 1978, of Brian Ross by the Township Council to the position of Economic Development Commissioner for the Municipality.

It was also recognized early in the struggle for survival that in order to attract industry to Atikokan it would be necessary to have more serviced land available for industrial use.

The disposal of Atikokan's sewage through the use of sedimentation tanks had converted the attractive Atikokan River into a slow moving cesspool at most times of the year. The Ontario Government had decreed that there could be no further expansion of serviced land until this condition was rectified. As a result the Township Council had proceeded to budget money each year for this purpose and took the initial steps required that would result in a modern sewage treatment plant for the community.

The financial situation of Atikokan at that time was excellent and the town's reputation as a model community with excellent school and recreation facilities made it an attractive place of residence for the employees of any industry.

The surrounding area was also the focal point of an expanding woods industry augmented by a virtually untapped tourist industry, highlighted by its adjacency to the world-renowned canoe country area of the Ontario's Quetico Provincial Park.

Two other major items received the full attention of Council at that time - the need for a modern airfield with regular air service and a connecting highway link northward to Ignace on the Trans Canada Highway.

Subsequent Township Councils continued this program and by 1978 the Ontario Government had designated Atikokan as a priority area, with a directive from the Cabinet to the various Provincial Ministries.

As this report is written the airstrip with regular air service by ON Air is an accomplished fact; a new sewage treatment plant has been constructed; the Ministry of Natural Resources, having designated Atikokan as a separate District, has constructed a new head office.

The road north to Ignace is under construction with two sections completed and further work planned in the coming years. Provincial Highway 11, the connecting road link eastward to Thunder Bay, is being rebuilt and repaved and the final two contracts will be completed in 1982 and 1983.

Recreational facilities have been further improved in Atikokan with the construction of a 9-hole golf course, adjacent to a new community centre which also houses a six sheet artificial ice curling rink.

The official announcement early in 1978 of the closing of their mining operations by Steep Rock Iron Mines Limited and Caland Ore Company had two major impacts - the loss of a $16-million annual payroll to the community and a reduction of 60 percent in the tax base.

Manpower Consultative Services, Ontario Region, were initially contacted by the Chairman of the (AID) Committee, primarily to see if there was anything that could be done to assist the Committee. As a result, several meetings were held, sponsored by the Atikokan Township Council, that included, in addition to Council, representatives of the mining companies, the two locals of the United Steelworkers of America, the Atikokan Chamber of Commerce, Pluswood Manufacturing Ltd., Domtar Forest Products, the Quetico Centre and the Ontario Metis and Non-Status Indian

Association. This group conferred with N.S. Allison, Director, Ontario Region of Manpower Consultative Services. With his assistance and advice the above parties established the Atikokan Joint Manpower Assessment and Planning Committee (known locally as JAMPAC), under a Memorandum of Understanding dated June 20th, 1978.

The Committee then signed an Agreement under the same date between the Minister of Employment and Immigration, the Minister of Labour for Ontario and the Minister of Northern Affairs, which contained a Minister's commitment of $5,000 in federal funds. Through a series of addenda (reproduced as part of this report) this amount was finally increased to $72,500. The Committee itself contributed $67,500 through funds donated by its members and a grant of $21,600 from the Ontario Ministry of Community and Social Services. The Ontario Ministry of Labour contributed a further $5,000 toward the Committee's commitment.

The Ontario Ministry of Northern Affairs, under another agreement with the Municipality, contributed $75,000 per year for five years directly to the Township, based on $2.00 for every $1.00 the Township spent towards its economic redevelopment. The Ministry of Northern Affairs is a signatory to the Manpower Assessment Incentive Agreement and participated in the activities of the Committee from the outset.

It was against this background that the Atikokan Joint Manpower Assessment and Planning Committee was officially launched on June 20th, 1978; its work finally concluded on 31 March 1982.

The terms of reference of the committee were as follows:

i to assess the impact of the phase-out of mining operations on the community;

ii to draw together all available data on demographic factors, employment, serviced land, commercial floor space, tourism and other aspects of the community's economy;

iii to identify any information gaps or deficiencies which would preclude the development of an adequate economic strategy for the community, and undertake remedial action where required;

iv to evaluate the present and future economic base, workforce, local resources, and the potential for locating new enterprises;

v to explore all options for the efficient administration of the economic development function;

vi to recommend to their principals and appropriate governmental authorities a basic economic development strategy, the means whereby the planning, development and management of the strategy may be enhanced, and a suitable worker adjustment program developed;

vii with the assistance of the Manpower Consultative Service, the Employment Adjustment Service, and the Ministry of Northern Affairs, to bring to bear and make the most effective use of all public measures and services available from the federal and provincial governments;

The committee's budget from 20 June 1978 to 31 March 1982 (including Transition Counsellor) was as follows:

REVENUE

		$	$
Private Sector	- Steep Rock Iron Mines Ltd.	3,000	
	Caland Ore Company Itd.	3,000	
	Mando (Boise Cascade)	2,000	
	Atikokan Chamber of Commerce	2,000	
	Domtar Forest Products	1,000	
	Pluswood Manufacturing Ltd.	500	
	Steelworkers	500	
	Quetico Centre (Services)	500	
			12,500
Township of Atikokan	- Initial Grant	5,000	
	Further Grant (Economic Development Office)	15,000	
	Further Grant (Transition Counsellor)	5,400	
			25,400
Ontario Hydro	- (Station B Account - Township of Atikokan)		5,500
Provincial Grants	- Ministry of Labour 1) 2,500 2) 2,500 3) 2,500		7,500
	Ministry of Community & Social Services (Transition Counsellor)		21,600
Federal Grants	- Minister of Employment & Immigration - Canada	45,500	
	Additional Grant - Transition Counsellor	27,000	72,500
Total Revenue			145,000

EXPENDITURES

Chairman's Remuneration	4,000
Lost time for Committee Members	1,500
Committee Travel	2,000
Secretarial Service	2,000
Preparation & Printing Reports	2,500
Supplies, Postage, etc.	3,500
Community Profile	14,000
Inventory Opportunities	18,000
Feasibility Assessment	5,000
Inventory of Investors	4,000
Servicing Requirements	5,000
Consultant Fees	20,000
Progress Reports	6,000
Transition Counsellor (Remuneration)	32,000
Transition Counsellor (Administrative)	14,000
Transition Counsellor (Community Service)	8,000
Contingency Fund	3,500
Total Expenditure	145,000

Training Programs

While the Committee was not successful in making available training in numerous other vocations, it spent a great deal of time endeavouring to generate courses in such areas as:

i electricians;
ii skidder operators;
iii computer technology;
iv data processing;
v servicing of equipment;
vi line cutters (for prospecting and staking mining claims);
vii machinists;
viii tool and die operators;
ix industrial maintenance mechanics;
x restaurant waiters;
xi tourist operator employees;
etc.

In addition, the idea that Atikokan itself, with two mines shut down and large buildings available, could be a training centre for the northwestern area, was given consid-

erable attention. Through arrangements made by Norman Allison, Dr. R. Taher, Chief of Training, Technical and Support Services, Ontario Region, Employment and Immigration Canada, attended the 13 May 1980 meeting of the Committee. This is an area that should receive further attention may still be followed up by the municipality.

It should also be mentioned that 20 miles east of Atikokan is the well-established Quetico Conference and Training Centre. The Centre conducts a very successful heavy machinery operators course of approximately 10 weeks, four times a year, sponsored by the provincial government. In addition, the Centre is the site of many conferences and initiates numerous programs in the arts, business and woodcraft. The Committee was able to use these facilities on many occasions, as the Quetico Centre's contribution to the work of the Committee.

Skill Programs Delivered - 1977/79

The following training programs have been provided in Atikokan over the past two years.

Air Commuter Service to Outlying Areas for Atikokan Labour Force

Initially, the UMEX mine hired about 33 persons, with 21 committed to the 'air shuttle' service. The first flights, commencing on January 18, were carried out using a Twin Otter aircraft with a seating capacity of 19 persons. This service utilized charter aircraft, funded by UMEX and funds from the Ontario Ministry of Labour and the Department of Canada Employment and Immigration. However, by April, government funding had been exhausted and the charter aircraft were no longer available. Miners then had to fly the NorOntario route from Atikokan to Pickle Lake via Thunder Bay, which meant more travel time and less time at home and on the job. The cost to the miners was $35 per round trip, with UMEX paying a subsidy of $25 a person. However, the miners had to book their flights 2 weeks in advance and pay for them within 7 days. As a result many men moved to Pickle Lake with their families or quit UMEX to find jobs elsewhere.

By the end of May 1980, only 8 to 10 persons were using the air shuttle service. Attempts were made to change the scheduled flights to make it more attractive. Unfortunately it was not found possible to get a quick rul-

ing on changing or adding scheduled air flights. As a result, the air commuter service soon became redundant.

In summary, the major problems encountered were the difficulty in melding established shift schedules to air-flight schedules, and the perception that the air commuters were being given preferential treatment. Finally, UMEX lowered the rent on company houses by 50 percent, thus encouraging people to move to Pickle Lake.

Transition Counsellor

During the December meeting in 1978, the Committee was advised by Alan Moon of Northern Affairs that he had received a letter from Dean Ralph Scharf of Confederation College, expressing his concern on the social impact on the community when the Atikokan mines closed. He proposed that a Community and Transition Counsellor should be hired to assist in the social adjustment of families affected by the closure system. The Committee felt there was merit in the suggestion and, as a result, invited Dean Scharf and his staff to attend the meeting of 9 January 1979. In addition, Ab Johanson, Local Administrator of the Community and Social Services Ministry from Keewatin, and Roy Morrow, from the same Ministry in Fort Frances, also attended.

The Committee supported the need for a transition counsellor and petitioned the Township Council to make application to the three government agencies (Department of Employment and Immigration, Ministry of Northern Affairs, and the Ministry of Community and Social Services) to provide funding. The Township Council agreed with the Committee's recommendation and by 13 February it was obvious the idea had government support, although the final source of funds was still undetermined. At the same time, the Committee felt that this program should be run locally, rather than through a professional organization such as Confederation College.

As a result, a subcommittee consisting of Messrs. Jackson (Chairman), Sheppard, McTaggart, and Hancock was set up to undertake the selection, hiring, and salary of the counsellor, and develop the budget, criteria, guidelines, job responsibilities, etc. This committee held several meetings with all the various local social service organizations and received their assurance of support for the project.

By this time the Committee had decided that a local person should be selected, if at all possible, one who was

held in respect by all walks of life in the community, and aware of the confidential nature of the job.

An agreement was signed between the Ministry of Social Services, Department of Employment and Immigration, and the Township to fund the project in the amount of $54,000, covering the period from 1 September 1979 to 31 August 1981. The funds would be administered by the Atikokan Joint Manpower Assessment and Planning Committee and the Transition Counsellor (now so named) would operate under the subcommittee previously appointed. An advertisement was placed in the local newspaper and several applications were received. These applications were considered by the subcommittee and the various persons interviewed.

For the record, the criteria for this position were contained in the following advertisement:

Transition Counsellor: applications are invited for the position of Transition Counsellor to identify and assess the impact of social upheaval and consequences as a result of the closing of both mines in Atikokan; and to develop a program to assist residents with personal and family problems that can be expected and have already appeared as the result of anxiety, unemployment, absentee family heads, moving, migrant construction workers, and other problems associated with this type of crisis situation.

The Transition Counsellor will:

a) identify human crisis situations which can result in personal or family upheaval and trauma;
b) promote an awareness of the problems, symptoms, and need for concern and medical support and the services available, including this counsellor;
c) provide direction as appropriate;
d) identify, provide contact, and co-ordinate the application of whatever specialized Federal-Provincial regional services that may be available and appropriate;
e) to write up a monthly report and a final report that could be a model for other small single industry communities with similar situations.

The Transition Counsellor will have the following qualifications:

a) a local resident;
b) working knowledge or awareness of the available community resources;
c) ability to get along with individuals and groups;
d) able to communicate effectively, both verbally and in writing;
e) a liking and aptitude for working with people;

f) capability to draw together service providers, service users and interested groups and citizens;
g) ability to communicate with government agencies;
h) experience in identifying human crisis situations and in understanding human behaviour in these situations.

The Transition Counsellor will report to the Atikokan Joint Manpower Assessment Committee and work with a Community Advisory Committee of four persons.

On 1 September 1979, Mrs. Fran Kolton was hired and commenced her duties. Mrs. Kolton was a well respected member of the community. She had a family, and worked in the Office of the District of Rainy River Family and Children's Services in Atikokan prior to her appointment. She was also a past president of the Steelworkers' Women's Auxiliary and Atikokan Minor Hockey, and active in other local organizations. The agreement with Mrs. Kolton was for one year at a basic salary of $1,250.00 a month plus expenses, effective 1 September 1979. The position and salary were reviewed annually and Mrs. Kolton's contract was renewed annually.

APPENDIX II RECOMMENDATIONS OF THE ATIKOKAN JOINT MANPOWER ASSESSMENT AND PLANNING COMMITTEE

It should be understood that the concept of such a Committee was a new approach to a problem that had never really been considered with a view to alleviating a condition that was primarily related to one industry communities.

In the case of Atikokan, the Committee had no previous experience to which it could relate its efforts. The terms of reference were stated in broad terms and, fortunately, were flexible enough to meet situations that could not be foreseen by the most astute authors of the idea of such a Committee.

It was also most important that in order to achieve any success the government representatives be persons to whom their function on the Committee represented more than just another job in an already busy work week. One cannot emphasize too strongly the contribution made in the Atikokan situation by these people, in particular:

> N.S. Allison, Director of Canada Manpower Consultative Service at Toronto; and the local representatives at Thunder Bay, O.H. Leonard in the early stages and W.W. Bouvier from June 1979, onward;
>
> A.J. Moon, Northern Region Development Economist for the Ontario Ministry of Northern Affairs, at Thunder Bay, whose place in the latter months was taken by Dale Ashbee, and their assistant, Charlene Catalano, from May 1979 onward;
>
> Harry N. Shardlow, Executive Officer of the Ontario Ministry of Labour, at Toronto, Ontario;
>
> A.E. Johanson, District Director of the Ontario Ministry of Community and Social Services, from Keewatin.

Atikokan was also fortunate in that it was comparatively debt free and had the benefit of government by Reeves and Councils that over the years had made the community an attractive one, with all the social and business advantages expected in this modern age, but not usually achieved by a small community. Atikokan also was home to a solid workforce and people endowed with a faith in the

town's future and prepared to do everything in their power to save it from the fate that so often had befallen one-industry communities. It also had a Reeve and Council who did not wait for the blow to fall, but took necessary steps to soften the impact long before it happened.

Although saddled with the so-called stigma of being a one-industry town, Atikokan in actuality had the advantage of being the centre of a considerable forestry industry and was recognized as being the hub of an area of great tourist potential, highlighted by its proximity to the famous wilderness Quetico Park.

The recommendations of the Committee are, in effect, a summary of the work of the Committee. We believe the concepts to be sound, and that a industry community, based on a nonrenewable commodity in particular, requires the full support and cooperation of government when that particular commodity is exhausted.

The Committee would therefore recommend for future efforts of this sort:

1. that the pattern as established at Atikokan be studied in detail by government experts in this field and such a program of cooperation between federal and provincial authorities be a standard procedure in the case of one-industry communities; that the federal government continue to commission the Consultative Service of Canada Employment and Immigration to initiate this program in all such cases; that the provincial government give cabinet support and designate one Ministry to act as spokesman and liaison with the federal government (in the case of Atikokan it was the Ministry of Northern Affairs);

2. that the terms of reference be broadened so that the CMCS has a lead agency role under which federal contribution to the program could more directly assist some of the projects and areas uncovered in the development of an economic strategy;

3. that, although, the composition of the Committee was confined to those representing sources who had contributed financially to the Committee's budget structure, it is our opinion that there are other segments of the community who, by majority decision of the Committee, should be included as voting members of the Committee. We would recommend the practice that both the representative and the alternate (should he or she so desire) attend the Committee meetings, even though there would be only one voting power;

4. that serious consideration should be given to the hiring of an Economic Development Commissioner (preferably by the Municipality) and that federal funds should be available, not only for the community profile study that his or her office would produce, but also for the development and follow-up of industrial opportunities that could restore a community tax base and population.

5. that the Committee's functions include a supportive role for committees such as the Steep Rock and Caland Manpower Adjustment subcommittees and that the chairperson of such committees should be a member of the JAMPAC Committee; that the Committee's function should also include assistance to the town workforce which had been dependent in a service function to the main industry; that such endeavours as the 'air shuttle' service be further studied by the federal government with a view to more flexible regulations to deal with the problem of air service franchises that hampered any possible success such projects could have;

6. that, as soon as an impending shutdown situation is identified, industry and government should cooperate in the provision of professional counselling and support systems to enable affected workers to identify their realistic career options and the means of pursuing them;

7. that the Committee should consider a priority item the matter of retraining and upgrading the skills of the unemployed workforce, and that the federal funding be broadened to enable the Committee to explore all avenues of training and the acquisition of learning space and equipment for training;

8. that the Committee should consider the social impact on the families and the bread winner as a result of a mass layoff, and that the provision of 'transition counselling' in such cases would be a priority item; further, if at all possible, the counselling should be provided from local resources; and processes leading to documentation and analysis should be incorporated at the outset of the activity;

9. that, when single industries develop or enlarge an existing small community, during the years of produc-

tion and success, such industries should set up a continuous contingency fund or 'closure impact' fund that would be a tax-free item, for the benefit of the community. We suggest it should be patterned on the impact agreements signed between Ontario Hydro and host communities, but worded to suit the particular situation arising from the closure of a single industry;

10. that, when a Committee's function and term of office has terminated, it should be replaced by an on-going committee with a similar function, possibly a committee of the Township Council or one set up by the Council, and that federal funds should be available to assist this committee until such time as the community has resumed a normal life;

11. finally, we commend the cooperation between the Government of Canada and the Ontario Government that resulted in the formation of this Committee and what we hope has been successful commission during most difficult times. Given the proper and normal conditions, we believe the format as devised is a successful one.

THE GOVERNMENT PERSPECTIVE

Robin Glass
Director General, Northern Resources and Economic Planning Branch
Indian Affairs and Northern Development, Ottawa

and

Joseph Lazarovich
Director, Mining Management and Infrastructure
Indian Affairs and Northern Development, Ottawa

We collectively recognize the need for a change in the patterns of resource community development. The years have served to reinforce ideas that were embodied in earlier analysis. Ten years ago we were asking: What are the required changes? Has there been any evidence of change? If so, is it in the right direction? At what cost? And to whom? Time has shown that the fundamental questions are still valid; the answers vary, depending on which of us is asked.

Each of us represents an interest group which has its own perspective on this subject. We have been asked to present the government perspective. As the saying goes, 'Where you stand is where you sit'. Our remarks represent federal officials' point of view, based on exposure to these issues at DREE, EMR and now at DIAND.

The government perspective has undergone a significant evolution through the years; this is not surprising, because Canadian society and the international environment have undergone massive transformations. In the early part of this century, governments took a relatively passive role. No concerted attempt was made by government to influence the pace and location of mineral development or the establishment of related human settlements. These were largely determined by the private sector.

During the 1920s, improved exploration and processing techniques coupled with a sharp rise in world mineral demand accelerated mineral development. The tendency of governments was to assume the role of resource administrators and suppliers of services to industry. It is no coincidence that the growth in the industry was accompanied by a corresponding growth in government and in mining programs, especially at the provincial level. The private sector was encouraged to pursue development opportunities to the fullest and was given virtually full reign in the development of new resource based communities.

This pattern, of a mineral industry left to develop as best it could, continued during the depression years of the 1930s. But in the mining industry, as in so many other areas, things changed rapidly when Hitler unleashed a new form of warfare on Poland in 1939. World War II forced the Canadian government to promote massive industrial expansion. Extensive exploitation of Canadian resources was an essential element in the national contribution to ultimate victory. Demand for Canadian minerals continued in the postwar years. In an effort to further resource development, governments initiated generous incentive programs such as the federal 'roads to resources' program for the north, and mineral exploration grants and incentives in almost every province. However, there were few, if any, conditions imposed on the private sector.

At the same time, technological advances triggered important changes within the industry. Among these changes, the technology affected occupational requirements. The recruitment and retention of highly skilled personnel became an important issue. These workers came from large urban centres and from abroad, and differed from their predecessors in that their skills, needs and expectations were largely shaped by an urban society. Consequently, a higher quality of urban amenities, along with higher wages, became necessary. Needless to say, these changes increased total project development costs substantially.

Since the 1960s, government policies have increasingly reflected other changes in Canadian society. Quality of life, environmental, and social issues have become more important factors. Public pressure has led to new legislation, regulations and processes concerning protection of the environment, conservation, affirmative action and the improvement in working conditions. In short, government started to influence the thrust of exploration and mining more directly. Looking back, the cumulative changes are almost startling.

Up to the late 1940s, there was little or no organized system of municipal government in mining communities. Single enterprise towns were administered by the company or a provincially appointed administrator. By the early 1950s, however, the responsibility for governing mining communities was clearly moving away from the company toward elected local governments.

The last twenty years reflected yet another change in government attitude. It stemmed from a growing concern over the escalating costs of providing and maintaining necessary infrastructures, community financing and the

equitable provision of services to smaller communities. Government/industry cost-sharing arrangements have become prevalent. Also, governments have become more involved in preventing or cushioning the decline of mines and their attendant communities.

For example, in 1964 at Pine Point, NWT, the government paid $67.8 million to cover all infrastructure costs on a total project expenditure of $92.8 million. This represents over 73 percent and, initially, there were no conditions imposed. This agreement is quite different from an agreement made thirteen years later with Nanisivik. There, the government paid $16.3 million toward infrastructure development. In return, government imposed conditions concerning employment of Natives, Canadian content in shipping, and 18 percent equity participation, including membership on the company's board of directors. Although a simple comparison of these two projects should not be pushed too far, they do illustrate the evolving relationship between the industry and governments.

Industry mobilizes large amounts of capital and more sophisticated and demanding labour in an uncertain and volatile international environment. Firms respond to signals of the market to make a profit. This is a formidable task and one that is further complicated by the existence of government requirements. But the objective is clear: there is a bottom line!

Government is different. There are many 'bottom lines'. Parliament, faced with a multitude of political interests and goals, gives directions to the bureaucracy, directions which in some way must reflect the fact that environmentalists want more environmental protection, Natives want mineral rights, manufacturers want buy-Canadian programs, firms in trouble want public assistance, the industry wants 'noninterference', unions want the government to end wage restraints, the territories want jurisdiction, and tax payers want relief.

This is the real world, within which we must answer the questions posed at the outset. What changes are required in the development of resource based communities? How can we bring those changes about? The questions are not academic.

Canada has had a resource-based economy for most of its history, and minerals have played a major role. Mineral development has conditioned and shaped communities across the country. Today, there are approximately 280 towns and cities of various sizes almost totally dependent on mining. In many cases, these communities served to open up previously uninhabited areas of Canada. The pattern of

spatial development has not been an orderly one. Through the years, many communities arose, prospered in varying degrees, and subsequently declined, in cycles corresponding to the life of the mines around which they were built.

Canadian society has evolved and the economy has diversified. With this growth has come an increasing recognition by industry, governments and local people themselves that the kind of resource community growth and development we have come to expect may no longer be appropriate. The problems are seen as being related to the lack of, or inadequate use of, infrastructure and services, and the difficulties in recruitment and retention of a stable labour force. In single-industry towns, problems are compounded by the constant threat of social and economic disruption associated with the cyclical nature of mining, and with the eventual decline and closure of the mine.

These social and economic problems represent costs which are very real, even though they are often not included on the corporate balance sheet. In 1974, for example, the Mining Association of Canada estimated that labour shortages and turnover cost the mineral industry $350 million. In addition, most mining companies provide generous allowances to workers in isolated areas. Housing benefits for northern miners average around $5000 per employee per year. This is the additional cost to the company of providing housing after a nominal rent is collected. Travel allowances range from $750 to $1500 per year per employee.

The estimated total value of these allowances for mine employees in Canada's northern territories is in excess of $15,000 per year per employee, and in isolated areas of the provinces it can range up to $9,000. Indeed, a recent survey of employee benefit costs in Canada[1] shows that the mining industry supports benefits which represent 47.7 percent of the payroll. This figure is higher than in any other Canadian industry.

However, these issues are not new and they have been examined and discussed for many years. Solutions are being found and change is occurring. The last decade in particular has seen a variety of innovative approaches to dealing with the human and economic elements of mineral development. What are these changes? Given the complexity and diversity of mineral developments in Canada, one would have to analyse each project separately in order to answer

1. The 13th Biennial survey of employee benefit costs in Canada, by Thorne, Stevenson and Kellog.

this question correctly. Obviously, we are not going to do this today. Instead, with a bit of stretching and fitting, the most typical situations will be identified and then discussed in some detail.

The appropriate type of accommodation for a mining workforce is a function of many variables. Of these, the most important are the size of the orebody, its location or degree of remoteness, and the cost of infrastructure. With this in mind, four general types of situations which occur within Canada can be identified:

A. orebodies with a relatively short life-span in a remote location;
B. orebodies with a longer life-span, in an area which could support regional development;
C. a number of orebodies located in regions with existing communities nearby;
D. a number of orebodies with long life expectancies in relatively remote locations.

Type A

Smaller orebodies in relatively remote locations traditionally have been sites for dedicated towns. It is these situations which have given the mining industry the 'boom-bust' image and which have given rise to the term the 'company town'. This is the most common situation, and these communities suffer the most acutely from problems related to remoteness, small scale, duration of mine life, and vulnerability to the vagaries of the mineral market. One problem inevitably associated with life in this kind of community is the high cost of living. To illustrate this, a recent NWT Chamber of Mines study shows the overall cost of living to be 28 percent higher in Yellowknife than in Edmonton. Furthermore, food costs in more remote centres than Yellowknife can range from 24 to 79 percent higher. Similar figures can be quoted for the cost of gasoline. On the other hand, one can argue about the remoteness of Yellowknife, and show that gas is cheaper in Nanisvik than in Ottawa, and that the tax take in the NWT is lower than in southern Canada. Another problem relates to educational facilities. While most communities of this type have public and some secondary schools, opportunities for further education are often not available locally.

In reality, though, perhaps this type of community has a diminishing role. The number of new dedicated towns seems to be declining, and those that are built appear to take the inherent problems into account at the design stage

in order to minimize negative impacts. A good example of this is Selco's South Bay, in Ontario, which demonstrated how a dedicated townsite could be developed, operated, and closed with minimal negative repercussions, through careful planning and enlightened management. It was designed and built with its eventual dismantling in mind.

Further indications that this type of community may represent a diminishing role are provided by a recent EMR survey which showed that 61 mines are expected to be developed before 1992. However, the development of only 6 new town sites is planned. The majority will use existing infrastructure and commute the required manpower from established communities. It is interesting to note that, despite this minimization of new community development, the anticipated cost for transportation, power and social infrastructure will be about $2 billion in 1982 dollars.

To reduce the costs of developing infrastructure, experiments with non-community alternatives are under way. The fly-in/fly-out approaches at the Polaris and Rabbit Lake projects are quite successful. This concept offers several economic and social advantages. Significant cost savings in infrastructure expenditures can be realized because accommodation and services normally required for family-oriented communities are not necessary. As well, the costs of indirect benefits, like subsidized housing, are not as great and it is generally easier to attract and retain skilled personnel.

The possible negative effects of the rotation cycles and work hours that this alternative involves raise some concern, and are not yet fully understood, but to date this does not seem to present a major problem for the majority of workers. This concept also raises some legitimate concerns in the territories and in provinces which do not have a sufficient pool of workers within their boundaries. This problem, termed 'fly-over', is something which will require much attention.

Type B

The Type B situation includes larger orebodies with life expectations that would seem to support more 'permanent' communities and a larger workforce. The critical difference between Type A and Type B situations is the scale of the resource base, the expected life, and the potential for regional economic dependence. Such communities can stimulate the population, taxation and economic base of the region, but on the other hand, if closure is premature or is

necessary before the region has been able to diversify its economic base, the social and economic costs are amplified. Faro in the Yukon, Uranium City in Saskatchewan, and Sept Iles in Quebec are but a few examples of the consequences that can arise.

Although in some situations the mine's life-span can be extended by new mineral discoveries, or by reclassifying ore reserves as a result of changes in market conditions, the simple truth is that a mine's life is finite. A mineral deposit or an entire producing area will eventually become depleted. Obviously, when mines have to close temporarily or permanently the local residents face major adjustments. To ease this process, federal and provincial governments usually have to expend large sums of money for community and income support programs.

In cases where mines close due to the cyclical nature of the industry, subsidies can prove to be valuable tools used for the benefit of all parties concerned. For example, the Emergency Gold Mine Assistance Act (EGMA) initiated in 1948 was designed to assist the gold mines and a total population of 120,000 people living in the adjacent communities. Over $300 million was expended between 1948 and 1973. Yes, there are different opinions within both the government and the industry regarding the usefulness of this program, but most agree that it was a good one, given the circumstances.

Advances have been made in planning for the development, management and adjustment of communities in Type B situations. However, there are still a large number of communities that face an uncertain future, like Granisle in British Columbia; Kirkland Lake in Ontario; Baie Verte in Newfoundland, and many more across this country. Dealing with their eventual decline may be one of the most serious community-related issues facing us.

Type C

The third situation, Type C, includes orebodies in regions with already established communities, with the result that regional centres have evolved over time around the diversification of mineral activity, or in areas which were already established before mining came along, like the Sudbury basin and Timmins in Ontario and the Highland Valley in B.C. Quality of life in these situations varies, but generally the communities provide better services and amenities for residents than those in previously described situations because of their relative permanence, size and diversity of the economic base.

Although Type C communities are subject to the effects of mineral cycles, the variety of economic activity they encompass makes them more immune to the effects of an individual mine closure. In terms of planning, the central issues are the encouragement of secondary economic activity and the integration of new mine developments into existing infrastructures.

Type D

The fourth situation, Type D, is based on large, diversified orebodies with no established communities present. With 40 percent of Canada's landmass being located north of the 60th parallel, where there are few established communities and significant indications of the presence of diversified orebodies, it is most likely that the pressure for the exploitation of mineral resources will occur there and that the development will, in many cases, be of this type.

The Tumbler Ridge Coal Development in Northeastern British Columbia is an interesting example that fits somewhere between Type C and Type D. The town was conceived as the southernmost town in a group of five regional towns with an aggregate population of more than 40,000 people. It is designed to avoid the problems surrounding other resource-based communities in that it represents an effort to integrate the entire region by having various communities share the same health, education, and transportation systems. The skills of workers in one place are generally transferable to another; therefore, if one town loses its economic base, the residents can continue to live in the community and commute to the nearby jobs. This integration process is realistically viewed as a slow one and the planning for it is long term.

To recap, each of the types discussed delineates a set of problems which escalate in scale and complexity as one moves across the spectrum from Type A to Type D. Their one common element is the human factor and the issue associated with it is how to minimize the hardships in existing and future mining communities. Progress has been made in coping with this by improving the quality of life in existing communities through the introduction of new government policies and programs; the growing realization within the industry that social issues <u>are</u> corporate issues which directly or indirectly affect the profit picture; and by the implementation of alternatives such as the 'fly-in/fly-out' concept. The question now is - what else might be considered to make further progress?

In most cases, the answer has to deal with the myriad of social issues and, more specifically, with the issues which surface during a temporary or permanent mine closure. While it is not suggested that we will ever be able to develop a package of policies and programs suitable to every situation, there are some actions that all involved parties can jointly undertake in order to minimize the hardships of workers and their families in mining communities. Some of these are centered around the mobility of workers, mobility which is currently restricted by the level of portability of skills, benefits, seniority and equity issues.

The construction, maintenance, and service trades have a nationwide program for standardization, but there is no current comparable program for mine-specific trades. This seriously reduces the re-employment possibilities for the worker when temporary or permanent closure is necessary. Governments, industry and unions should consider setting up an interprovincial standard program aimed at producing similar, but not necessarily uniform, standards of training and certification for mine workers.

In respect to the portability of benefits and seniority (issues very difficult to resolve), governments, labour and industry might consider developing options for pension portability and earlier vesting, so that mineworkers do not suffer a loss in benefits when they need to relocate. This concept can also be extended to seniority and vacation provisions. Quebec already has proposed a bill to ensure that seniority entitlement is transferable. This indicates that government may have a role to play in contract bargaining. Another possibility would be for the company and the union to deal with this issue on an ongoing consultative basis.

Another serious problem is related to the loss of private wealth in the form of accumulated home ownership equity. A recent report prepared by a Federal/Provincial Task Force on Mining Communities offers a number of options for dealing with this. Among them is the concept of 'shared risk' which would apply in communities where housing is already owned by workers. This could mean that all parties who benefit from mineral development contribute in due proportion to a sinking fund and share responsibility in the event of temporary or permanent closure. Accordingly, a formula could be designed for realistic indemnification against loss. In new resource towns, governments could consider requiring some form of housing buy-back fund as a form of insurance against unreasonable loss of equity.

Another alternative for governments may be the establishment of a 'mining community reserve fund'. Manitoba has already established one to alleviate the hardships communities suffer in the event of mine closure. Manitoba may put up to 3 percent of the mineral royalities it collects into the 'mining community reserve fund'.

To cushion the impact of the industry's cyclical nature, or prevent a mining community's demise, the economic diversification of the vulnerable community or region is necessary. This includes both vertical diversification linked to mining and independent horizontal diversification. These activities, however, have limitations related to the matching of scale, skill and timing of the displacement or disruption, as well as the availability of other economic ore deposits. Governments could encourage an examination of the potential for economic diversification and, indeed, require that comprehensive diversification assessments be integrated into the community planning process.

These are some of the possible alternatives for minimizing potential hardships on both the individuals and the communities already established.

What can be done to maximize benefits and minimize potential hardships in new mineral development projects? Regional centres are an appealing solution where feasible, and consequently governments are already discouraging the development of single industry towns. For example, on a provincial government level, Alberta's policy regarding single resource communities is that the developer must use existing facilities as the operational base for the new development. Saskatchewan and Manitoba are encouraging the fly-in/fly-out approach. In the Northwest Territories, policy calls for the construction of a townsite only when ore reserves can sustain the operation for at least twenty years. Yukon encourages fly-in/fly-out from existing communities within the territory. British Columbia supports this stance and in fact recently rejected a coal company's proposal for a new town in the East Kootenay region in favour of expansion of the existing community of Elkford. It was felt that Elkford would provide a higher level of public services and greater regional economic stability, by encouraging interdependent communities like those in the Highland Valley, where individual mines are accessible from a number of communities, thus creating greater stability and facilitating the multiple use of existing infrastructure.

The federal government has a special responsibility for resource community development north of 60. Based upon past experience and an extensive internal review, there is a consensus emerging that dedicated townsites should be dis-

couraged and, wherever possible, the development of central resource towns should be encouraged, since it is recognized that the 'non-community' approach of fly-in/fly-out is not feasible for development which are expected to continue for extended lengths of time. In respect to the Territories, these issues will be addressed in the Northern Mineral Policy.

The question then is: under what conditions might new community developments proceed? The factors taken into consideration in arriving at a decision of whether or not to go with a new community include: location and scale of the proposed operation; expected life span; the provision of a comprehensive plan for closure; benefits to the region or country; benefits to the Native people if the site is north of 60; and some demonstration that alternatives have been considered and are not feasible.

For example, the Macmillan Pass region in the Yukon has seven companies involved in various stages of exploration and planning. Each of these companies may submit a proposal for development. The timing of these proposals is unknown and is often dictated by consumer contractual agreements, capital availability, market forecasts and technological advances. Obviously, in a system where individual companies come forward in random sequence with proposals to develop specific orebodies, the essential prerequisite for truly effective community planning is still not available. This prerequisite is information on the characteristics of the orebodies in the region, the timing of developments, and the implied manpower and infrastructure requirements.

Normally a mine comes into development without a complete knowledge of the orebody's characteristics. D. Cranstone from EMR surveyed 100 Canadian mining companies and found that, on average, a mine's lifespan is twice that initially planned in the case of base metals, and over three times in the case of vein deposits. There are, however, cases where the opposite is true. Take, for example, Schefferville: a lot of ore remains, but changing technology, costs, and markets have made it uncompetitive.

In these situations, what comes immediately to mind is the cost of infrastructure and to what extent governments are willing to contribute. Notwithstanding expenditure restraint, it is reasonable to assume that governments will consider sharing the cost or even providing up-front money for the development of initial infrastructure. The sharing schemes and/or the eventual recovery of public funds will probably be negotiated on a project-by-project basis. The ultimate objective is to have more diversified, permanent

regional communities and fewer dedicated single resource communities. We think government would also encourage the use of existing cities and towns like Whitehorse, Faro, and Yellowknife north of 60, or Flin Flon, Sudbury and Noranda, as a base for any new developments. Where this is not possible, new regional centres which will serve a number of mines and other economic activities are preferred.

The simple conclusion is that the planning and decision making process must be flexible and that all parties have to recognize that cooperation, understanding, and a common purpose are absolutely necessary.

And this brings us to the last part of the speech. What is our record in this respect? For many years the general belief has been that the main players have different and often contradictory objectives. On the surface, provincial governments may occasionally disagree with their federal counterpart, labour may distrust management, management criticizes labour for excessive demands and both have been known to blame government for just about everything.

Let us be more specific. The key players involved in the development, operation and closure of a mine and in the potential decline of its attendant community include the mining company, the labour force, the three levels of government, the shareholders and the residents of the community. All these players may significantly change over the mine's lifespan. Thus, the original rationale for the opening of the mine in the first place, and the many benefits it has generated over its life, can become quickly forgotten in the emotions associated with the mine's closure. This is a major problem which I think we all should recognize.

The company's management is interested in developing a profitable operation at minimum risk and cost. They have to do it within a highly competitive and complex international market and an equally complex social and institutional domestic environment. The company has responsibilities to its shareholders, who in turn have their own set of expectations and interests. Consquently, the company seeks to have infrastructure in place in time to support its activities and, not surprisingly, would like that infrastructure eventually be paid for by the government under realistic terms and conditons.

Labour is interested in earning a fair wage and expects a certain amount of job security and a commitment by the company to a continuing improvement in the working and living environments.

Provincial governments are interested in effectively managing nonrenewable resources and in the realization of their own economic and social objectives. In short, they want a fair share from the development of mineral resources. The federal government has similar interests but within a national context.

Despite these differences, it is easy to see that all parties share one major objective: to have a strong, efficient, profitable and internationally competitive mining industry in Canada. Only then will the sector be able to continue to provide benefits to all Canadians. The recent economic crisis has been very educational in this respect. It has resulted in a growing awareness that all parties have to plan and work together.

A good example of what can be done when both levels of government, the company's management and the union work together is the solution worked out recently for Cyprus Anvil. Everybody contributed to the solution. As a result, the mine is alive, its long-term viability will be enhanced, the community of Faro is not a ghost town and the Yukon economy got a shot in the arm. Without cooperation among all parties, Pine Point and other communities across Canada would also be faced with great difficulties.

The recent crisis also reminded us that there will be more temporary and permanent closures of mines and that we collectively have to be better prepared to handle the difficult economic and social issues when the crunch comes again. In summary, we need changes. They must reflect the needs of industry, government, labour and the communities. The premise is that industry identifies opportunities, mobilizes capital, a labour force and provides the know-how. Government provides public goods and services in support.

Industry needs:

i a clear and consistent policy framework;
ii government's help in the development of infrastructure;
iii quick and definitive government decision making.

Government needs:

i clear and comprehensive information demonstrating that projects conform to policies;
ii proof that social benefits are greater than social costs;
iii assurance that all legitimate stakeholders support the project or at least acquiesce.

The challenge is to set up the simplest process to ensure that needs are met.

Characteristics of such a process should ensure that:

1. managers have an incentive to achieve positive results. This means,
   - focal point for management (accountability);
   - streamlined approval process (no second-guessers with no stake);
   - need for managers who know industry and policies (i.e. bureaucrats should know industry, company officials should know government).
2. company philosophy, endorsed at the most senior level, indicates a sensitivity to legitimate stakeholders, i.e. not just lip service;
3. governments are be flexible enough to deal with each project on its merits within broad guidelines (Types A, B, C, & D).

Bottom Lines:

4. fewer single industry communities, more fly-in/fly-out situations;
5. development of central resource towns serving a number of mines and other economic activities;
6. where possible, identify growth centres among existing communities;
7. people will have to accept certain facts of life when they go to work at a mine and live in a mining community;
8. rational mineral development requires a company/government dialogue which promotes consensus rather than conflict.

CMHC HOUSING INSURANCE IN RESOURCE COMMUNITIES

William Mulvihill
Director, Underwriting Division
Central Mortgage and Housing

The Central Mortgage and Housing Corporation (CMHC) as you know is involved in all aspects of housing, but it is its mortgage insurance activities which have been the most frequently used service in resource communities, and it is the extent of our losses in these areas of business which have led to much controversy. CMHC is now examining its lending (insurance) policies in resource communities, so this is an opportune time for me to give you some information about our deliberations and hopefully for you to give me some feedback. I should point out that the opinions given here are my own and do not necessarily reflect CMHC policy and deliberation.

Mortgage insurance, for those of you who are not familiar with it, is used to reduce the risk of mortgage lending and encourage financial institutions to invest in residential mortgages. National Housing Act (NHA) insurance provides to lenders the guarantee that in the event of default the lender's losses of principal, interest, taxes and all his legal and other expenses will be covered by the insurer. In turn, the insurer takes over the property. Typically, it costs CMHC 120 percent of the original loan to pay the insurance claim. The eventual loss on resale of the property can be from 30 percent of the insured amount in urban areas and up to 100 percent in remote communities where buildings are empty and closed down awaiting a change in the local economy. During the time the property is held it must be heated and inspected, and the property taxes and other charges must be paid by the Mortgage Insurance Fund. Under the NHA, a borrower in a remote community can expect to get the same interest rate as a person in downtown Toronto. By law, most mortgage lenders must insure mortgages which exceed 75 percent of property value. In practise, in more remote areas, insurance is obtained for most loans. In future, because of significant losses taken by lenders making uninsured loans in remote areas, we can expect mortgage insurance to be required on virtually all mortgages in resource communities. In the past the premium for this service has been from 1 to 1.5 percent of the mortgage amount. In the future it will surely be much higher in resource communities.

Mortgage insurance, then, is essentially disaster insurance, and it is because of the risk-pooling nature of the insurance that a total collapse of one market can be paid for by the relative stability of the rest of the insured business. In that way, heavy losses in resource communities have been easily covered by large profits on insurance in urban areas. In fact, the rest of the business was so good that our only failures were resource communities such as Elliot Lake and Thompson. However, the business environment has changed. Urban centers have suffered severe setbacks and all the excess in the insurance fund has been depleted. Moreover, CMHC must now actively compete with private mortgage insurers who are not generally active outside major urban areas. The necessity for us to compete on price in these areas means that there is a much reduced possibility to pool resource-community risk over a larger universe. Now resource communities must be looked at as a separate and special line of business. From a mortgage insurance point of view we can no longer hide the lending risk which these communities represent.

As well, the National Housing Act was amended in 1982, with the result that CMHC is expected to operate its insurance business on at least a break-even basis. Premiums which in the past were specified in the act must now be set on a risk-related basis.

I am sure that you all want to know how much this premium should be but I must confess that we are a long way from an answer. The idea of looking at different risk categories is new to us and our old data bases are not adequate. Coupled with this is the fact we are as yet unable to come up with a definition of a resource community. However, preliminary work suggests that an 8 percent premium might be reasonable; it is unlikely to be less than 5 percent or more than 15 percent. Of course, many things could have an impact on the premium, including involvement in housing by either other government departments or the resource companies.

While our data on resource communities are imperfect there is easy evidence of the extent of the problem. Currently, in only two areas, Thompson Manitoba and Sept Iles, we have over 2,500 mothballed units. Given the length of time we have held these units and given the future economic prospects for these areas, it is likely that we would have had to insure 150,000 similar units to generate revenues sufficient to cover the losses. Currently, large numbers of claims are expected or being settled in Labrador and in Northern B.C. with little hope of early resale.

If our premium rates are to increase dramatically, then we must look at their effect on the viability of rental projects and the affordability of home-ownership units. In the latter case, the premium is almost always added to the mortgage so that the effect is the same as if the interest rate were marginally higher. An 8-percent mortgage premium would have the effect of increasing a 12-percent mortgage to a 13.2-percent mortgage. This is not unreasonable in light of the risks associated with lending in resource towns.

In the case of rental accommodation, the premium would be an eligible component of project cost and would have the effect of either increasing the equity requirements for the proponent, or increasing rents by 4 or 5 percent. When risks are so high and indeterminable, as in the case of resource communities, the idea of providing a 25-year insurance policy for a one-time premium is naive. Some groups will pay either too much or too little and the costs or benefits of our imprecision will accrue to these obtaining insurance in the future.

The most precise and equitable way to set premiums is to charge an annual premium which can be adjusted upwards or downwards according to the performance of resource communities in general. The advantage of this method is that the insurer can balance his losses by increasing or decreasing his premiums over a large number of mortgages and everyone shares the costs equally. The disadvantage is that mortgage practice in Canada is based on a one-time premium, and most lenders' mortgage administration systems would be unable to handle the change; this would result in fewer of them being active in these communities, and thus decreased competition and likely higher rates of interest.

From our point of view, the best security we can obtain for a loan is the guarantee of a secure parent company. The underwriting decision then becomes one of assessing the strength and long-term potential of the company, which can be done in a number of ways including the use of a rating service like Standard and Poor. There are other good reasons for insisting on company guarantees. First the housing financing is generally over 25 years and affordability considerations usually preclude shorter amortizations. This is, I am sure, out of phase substantially with the amount of time the company must be active in the area in order for the enterprise to be viable. In fact, with rapid equipment depreciation and other considerations it is possible for a mine with a much shorter lifespan to be viable. Since the economy of the town is controlled by a few people and their decisions are based reasonably on internal

considerations, it is essential that the company be liable for part of the mortgage risk, so as to ensure that the long term viability of the community is considered in their decision making.

Companies have argued in the past that the fact that there has never been a claim against a company guarantee by the Mortgage Insurance Fund shows that such guarantees are unnecessary; besides, they clutter up the company balance sheet and limit its borrowing capacity. However, the real reason for a lack of claims has been that our policy was ill-conceived and has been poorly applied. In fact, it is true that our policies were aimed more at fostering community development than at limiting risk. In many instances, only the guarantees of the subsidiary active in the area have been obtained, and the subsidiary usually dies as mining operations cease. The policy itself is more notable for its ease of calculation rather than its appropriateness to risk management.

Guarantees have been required in all resource communities where the rate of growth exceeds 20 percent or is zero or declining. However, the guarantee applies only to housing for company employees. In the former case, the rapid growth almost certainly signalled an upswing in the communities, and in the latter case the community's decline was almost surely underway, so that it was unlikely that there would be any sales activity among company employees. In fact, guarantees once obtained would normally lapse as the properties were sold and new higher mortgages were put in place during periods when the growth rate was less than 20 percent.

Price increases which occur in unstable economies add a substantial risk to our insurance, since they disappear quickly with the slightest downturn in activity. It is important for us as an insurer not to get caught up in these price changes.

The differing economic lifespans of the resource and the housing stock leaves the insurer in an overextended position. While we might feel safe insuring mortgages which amortize over the length of the contracts held by the company, the problems of affordability have always made such a policy impractical. But there would be a good reason to insist on company guarantees in those cases where that amortization period exceeded the period of assured viability of the community.

In the past we have encouraged home ownership by insuring mortgages based on values currently being reflected in the market. Our experience indicates that so many of these markets fail that it would be better for us to set a

lending value once when a house is built and not allow that value to change. This would certainly make resales at much higher prices more difficult, since as a general rule prospective purchasers would have little if any down payment. This policy would also allow us to keep company guarantees in place, and would limit our losses during periods of slight decline, when prices more closely reflect the value of the bricks and mortar. Finally, such a policy would allow us to meet the Corporation's social objectives of providing housing for Canadians while at the same time limiting the cost of that housing.

While home ownership is very risky, rental accommodation if provided by the company is a much better alternative. Firstly, because of accelerated capital cost allowances, the equity required to build the units can be recaptured in about six years for unsupported rental and in as little as two years for rental housing supported by government programs. This makes it possible for the company to provide accommodation at reasonable rents which the company is unlikely to increase drastically in tight market situations. Also, because the company is the borrower, its covenants have of necessity been provided.

In conclusion then, I would assert that of the three things to be considered in the underwriting decision - the property, the borrower, and the local market - the local market in mining communities has by far the major impact on risk. So, while there are many ways to provide mortgage insurance in resource communities, it can only be done at a reasonable cost if the local market can be controlled. Since the market is artificial and is subject entirely to the whim of a company or a small number of companies, it is imperative that these companies have a financial stake in the housing in the community.

Secondly, depending on the level of company involvement, premiums can be established which make the provision of insurance viable. It would be more equitable to have an annual premium but this would require a change in longstanding mortgage practise.

Thirdly, there are ways to limit risk in cases where the local economy sags but does not collapse entirely. This would normally be done through limiting mortgage insurance to the house value at the time of construction. Another way that this can be done, and one which I have not mentioned yet, is to insist that some portion of the housing stock, say 20 percent, be mobile and will be vacated in favour of normal housing in the event that the market contracts.

Fourthly, it is not at all certain that home ownership is a good thing in mining communities.

Fifthly, rental accommodation appears to be the better solution to the housing problems faced by mining communities.

Finally, I have not mentioned the involvement of other government departments in the housing problems faced by mining communities. We will certainly be discussing our problems with them. But while these discussions will hopefully lead to housing being integrated into all the planning for the community, from the government's point of view any losses which they might guarantee would still involve government funds. Therefore, in the interest of determining the true risk of housing in resource areas I would prefer the use of insurance premiums to a combination of premiums and guarantees by other agencies.

ALTERNATIVES TO SINGLE PROJECT MINING COMMUNITIES: A CRITICAL ASSESSMENT

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Introduction

The heart of the Canadian mining industry is a constellation of producing orebodies scattered across the country. Most of these occur in relatively remote locations. Faced with having to provide housing and services for their employees in such an environment, mining companies have frequently responded by establishing new townsites that would serve at least the basic needs of employees and their families. The result is a large number of communities across the country whose existence is tied to the operation of a single mining project or to activities. During the past two decades, an increased awareness and concern has developed about these communities whose dependence on a single project combined with a remote location have typically produced acute economic, social and environmental problems. The recent recession, which precipitated several mine closures and significant cutbacks in most mining projects across the country, has vividly demonstrated these problems and has led to increased and broadly-based interest in the future of mining communities. The current conference and the recent Federal Provincial Task Force on Mining Communities exemplify this.

With the increasing awareness of problems associated with single project mining communities, proposals to develop additional such communities can expect to meet increasing resistance in the future. In keeping with a trend which began in the early 1970s, governments can be expected to question seriously the development of new single project mining communities and to seek out alternative approaches to meeting the mine developers' community requirements. During the past two decades, a variety of alternatives have been tried or proposed.

The remainder of this paper examines some of these alternatives, divided into two broad categories:

i Single project approaches[1]: These consist of alternatives that deal exclusively with a single mining project. Commuter rotation and relocatable communities will be examined under this approach.

ii Diversified community approaches: These consist of alternatives that are oriented to dealing with more than one project, one of which is a mining project.

A brief description, examples (where possible) and an assessment with a comparison to the single industry mining community will be provided for each alternative. The situations under which the alternative is applicable will be identified and, to the extent practicable, evaluated.

Single Project Mining Communities: Background Perspectives

In order to assess the alternatives to single project mining communities adequately, an appreciation of the reasons for such communities is necessary.

Single project mining communities have been very popular with mining companies for several important reasons, the most relevant being:

i Obvious response to remote projects: Most mining projects occur in very remote areas, where there are only small, largely native, communities, or no communities within daily commuting distance. In such circumstances, a new townsite near the project is seen as the obvious way to provide for the basic needs of project employees and their families. This response is founded on substantial historical precedent. As Dr. Ira Robinson perceptively noted in a recent paper, 'In actual fact, resource towns have been a continuous feature of Canada's historical development, for in the various surges of expansion that have marked the country's history, activity on the frontier has been the quickening element. And, when natural resources have been exploited in sparsely populated, inaccessible

1. A single mining project is defined, for the purposes of this paper, as one mine or a group of mines that are a) in close proximity to one another, b) operated by the same company, and c) use the same mill.

areas, the creation of new communities has been the common type of settlement pattern'.[2]

Until the early 1970s, establishing a mining community was one of the few possibilities considered to meet the living requirements for a remote mining project; the other main possibility was a mining camp. Companies frequently favoured the new community approach since it was more attractive to employees with families. Other possibilities, including most of the alternatives being discussed in this paper, simply did not come up for consideration.

ii Flexibility of location, timing and scale requirements: The single project community approach is well suited to enabling the community requirements for a project to be developed in tandem with overall development of a particular mine. It is very flexible in location, timing and scale requirements. Until recently, when governments began to question the introduction of mining communities, such towns could be established virtually at any location, at any time and on any scale. This relative lack of restrictions suited an industry such as mining, where the mineral resource must be located before being developed, and the location, timing and size of economically viable discoveries is uncertain. This crucial point is frequently not appreciated when considering the relative advantages and disadvantages of single project communities. The flexibility of location, timing and scale is the most important advantage that these communities offer.

iii Moderate share of operation and maintenance cost: Mining companies often incur a sizable share of the initial costs of developing a new townsite. However, their share of the operation and maintenance costs of the community is generally much smaller, since they are largely borne by the residents themselves and by governments. The company's share of costs is often recovered through a property tax levy or a grant in lieu of property taxes. While this can be a sizable amount for the company, it is generally a small or moderate portion of total operation and maintenance costs for the community.

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2. I.M. Robinson, New Resource Towns on Canada's Frontier: Contemporary Issues, presented to Energy Resources Communities Conference in Calgary and Edmonton, June 1982, p. 2.

Thus, it is apparent that several good reasons exist for the popularity of single project mining communities among mining companies. These positive factors are often excluded from discussions of mining communities, resulting in an excessively biased view against such communities. The focal point and sometimes the only point of attention is usually the problems associated with these communities.

Mining communities are beset by a long list of problems, some of them very serious, which makes them unpopular among senior government officials and, at times, their own residents. These problems are well documented in various sources[3,4] and only the ones most relevant to our comparison with alternatives to single project mining communities are discussed here.

i Long term instability: the existence of a single project mining town is dependent on a depletable orebody which must eventually run out. When this happens, unless some other economic base has been established in the interim, the community will cease to exist in its traditional form. Such occurrences often impose tremendous psychological and social strains, and sizable compensation and relocation costs. As well, a great deal of usable infrastructure becomes redundant and is wasted.

ii Short-term instability: the level of employment, income and general quality of life of a mining community depends on the production and sale of one or a very small number of mineral products. Because of the highly volatile nature of international mineral markets, as well as other factors such as strikes by mining employees, such communities often have a roller-coaster type of existence. This can be highly stressful to residents because of the uncertainty it produces and the difficult adjustment periods that must accompany it.

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3. I.M. Robinson, New Resource Towns on Canada's Frontier, contains an in-depth analysis of seven special problems that resource communities, including mining communities, face.
4. R. Roberts, et. al., 'Tumbler Ridge: The Case for Socially Responsive Planning', Calgary, Alberta, 1983, contains a listing and discussion of 12 problems of mining communities pertaining to human services associated with the quality of the town and implementation and delivery of service.

iii Very limited choices: most mining communities, since they are tied to a single project, must necessarily be quite small, i.e. under 5,000 people. This, in combination with remoteness, severely limits the choices that are available to community residents in terms of retail and publically provided goods and services, employment opportunities and social interaction. To expand their choices, residents must make lengthy and relatively costly trips to a distant regional or metropolitan centre.

iv High turnover: as a result of the above and other factors, mining communities often experience high population and employee turnover. While the situation has improved significantly in the past few decades as a result of concerted efforts focusing on social planning in mining communities, the levels of turnover are still considerably higher than normal.

Single Project Approaches

Commuter Rotation

Commuter rotation is the most promising alternative to single project mining communites and therefore it will be considered in greater detail than other alternatives. Commuter rotation eliminates most of the problems of such communities while creating few of its own. It is also reasonably flexible.

Commuter rotation is a very recent development in the mining industry. The first significant application began in the first half of the 1970s at the Rabbit Lake uranium mine in northern Saskatchewan. Two other uranium mines in northern Saskatchewan (at Cluff Lake and Key Lake) have used it since then, as well as a number of other projects in northern Canada. Commuter rotation in its most effective form is applied to all employees, with a relatively short rotation period.

Under the commuter-rotation system, existing communities are used as the residential centres for mine employees and their families. Employees work one or more weeks at the mine followed by one or more weeks off. The working period is spent totally at the project site; the time off is spent in an existing community where the employees family resides. At the beginning and end of the working period, employees are transported at company expense between the mine site and one or more communities designa-

ted as pick-up points. Pick-up points are often many hundreds of kilometres distant and usually include a regional or metropolitan centre as well as local communities in the same region as the project. The rotation period can vary from mine to mine, e.g., uranium mining projects in northern Saskatchewan use a one week in, one week out rotation; other projects use two weeks in and two weeks out, six weeks in, four weeks out, six or seven weeks in and two weeks out.

In relation to single industry communities, commuter rotation has the following limitations and advantages.

i Commuter rotation is quite flexible in its applicability, but it does appear to have certain limitations. It is totally flexible in terms of timing requirements and it can be introduced to a particular project at any time. However, high transportation costs and logistical problems would seem to limit the location and scale of projects to which this alternative can be applied. Commuter-rotation systems can be used over a sizable area, (for example, the Cluff Lake project is about 750 km from its main pick-up point in Saskatoon). However, they may not be feasible for extremely remote locations such as the high Arctic. It is noteworthy that the two recently developed mines on the Arctic Islands (Nanisivik and Polaris) do not use a conventional commuter-rotation system. They use what might be regarded as a prolonged rotation in combination with a townsite or near townsite approach. A conventional commuter-rotation system for these mines would likely be too expensive, as the nearest potential pick-up point is well over 1,000 kilometres away. To date, communter rotation has only been applied to projects having a small or moderate number of employees. The Key Lake project in northern Saskatchewan is the largest, with about 500 employees. In the case of coal development in Northeastern British Columbia, which involved about 2,000 mining employees, commuter rotation was considered and rejected because of high transportation costs and logistical problems. A scale limitation for commuter-rotation systems seems to exist somewhere between 500 and 2,000 employees; it is probably closer to the lower number. These location and scale limitations are very important because they indicate that, at least for some mining projects in the future, i.e. the large or very remote ones, the development of new communities will be required.

ii In contrast to a single project community, commuter systems require the mining company to cover the full share of the capital and operating costs of the system. In general, the mining company's capital cost would be much lower than for a community, since a camp rather than a townsite is being built. Operating costs, however, would likely be considerably higher, owing to the transportation requirements which are, accordingly, the principal deterrent to adopting a commuter-rotation system.

iii By using existing communities, a commuter-rotation system contributes to the diversification of the communities where its employees are located, thereby enhancing the communities' stability. Also, since large centres are used for the major pick-up points, employees of the project are generally a small portion of the employed in their community. Any destabilizing impacts that result from mine cutbacks or closures are minimized. The problem of choice for employees and their families is alleviated, since they will usually live in or near the major pick-up point. Experience to date indicates that projects with relatively short rotation periods experience reasonably low turnover levels. For example, the Rabbit Lake project, in its first three years of operation, had an average turnover rate for its mine and mill employees of less than 30 percent.[5] This is remarkably low considering that it occurred in the late 1970s when the economies of the western provinces were booming and many attractive employment alternatives existed.

iv While alleviating most of the problems of single industry communities, commuter-rotation does not seem to create any serious problems of its own. The most significant concern is the regular separation of an employee from his family for a week or more.

v Commuter-rotation significantly enhances the accessibility and attractiveness of mining employment for residents of remote northern communities. This is a very important development in enabling a larger share of the benefits from mining projects in the north to

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5. J. Beaveridge, 'The Rabbit Lake Commuting Operation: A Case for Mutual Adaptation?' Preceedings: Conference on Commuting and Northern Development, University of Saskatchewan, Saskatoon, 1979, p. 135.

accrue to northern residents and, in turn, making these projects more politically acceptable to the regions where they are developed. In the long run, this could be the most important advantage of commuter-rotation systems for the future development of our mining industry.

In addition to pure commuter-rotation systems, a number of variants have been adopted. These are often combinations of commuter rotation and mining communities. For example, at the Nanisivik mine, a community was set up, but employees are regularly given several weeks off after a prolonged work period. Prior to its closure, the Beaverlodge mine at Uranium City was operating a seven day in, seven day out commuter-rotation system for northern employees who lived in communities along Lake Athabasca. This model is also being used at the Syncrude project. In the latter two cases, a mining community had already existed for some time and the commuter-rotation system was introduced to increase the level of participation in project jobs by residents of the nearby region. As pressure is placed on mining companies to increase levels of regional participation in projects, we can expect this approach to be used more frequently.

Relocatable Communities

The idea of relocatable communities is not a new one in theory or in practice; however, it invariably surfaces when alternatives to single industry communities are discussed. The idea was examined in detail by Parker in the early 1960s.[6] He proposed developing a community that had portable buildings, e.g., trailers or modularized units. Once the mining project ceased to operate, the community, including buildings and people, could be transferred in whole or in part to the location of a new project. If the economic base of the original community became diversified, it could be redeveloped as a permanent community. Even before Parker's work, there was at least one actual instance of a mining community being relocated. This was in the early

6. U.S. Parker, The Planned Non Permanent Community: An Approach to New Towns Based on Mining Activity, Ottawa: Northern Co-ordination and Research Centre, Department of Indian Affairs and Natural Resources, 1963.

1950s, when the mining community of Sherridon in northern Manitoba was relocated to the present site of Lynn Lake; 208 buildings were moved more than 250 kilometres by the company, Sherritt Gordon, which operated both the depleted orebodies at Sherridon and the new orebodies at Lynn Lake. Interestingly, Sherridon had not been built as a portable community; the situation coincidentally materialized where its relocation represented the best way of starting up the new community at Lynn Lake.

The relocatable community alternative can diminish the problem of long-term instability of a mining community, by providing the opportunity to extend the community's life once the project it depends on terminates. Aside from this, a relocatable community would experience all of the same problems of a single project community.

The applicability of this alternative seems to be very limited. Its timing requirements are very rigid, depending on the finely tuned sequential occurrence of two projects. It is highly preferable for the two projects in question to be in the same general region and to be operated by the same company, as occurred with the Sherridon/Lynn Lake situation. In an industry such as mining, with its high uncertainty regarding the timing and location of future orebodies, this set of circumstances occurs rarely and, furthermore, it cannot be planned since information about a subsequent project is not likely to be available when the first community is being established. Given the drawbacks, the relocatable community is not regarded as a promising alternative to the single project community.

Diversified Community Approaches

Diversification approaches are oriented to developing communities which are dependent on more than one significant project for their economic base. One of these would be a mining project (referred to as the basic mining project elsewhere in this section), while the other(s) could be:

i other mining projects, e.g., Tumbler Ridge, B.C.;
ii mineral processing projects such as smelters or refineries, e.g., Thompson, Manitoba;
iii projects involving unrelated industries, such as oil and gas, forestry, hydro development, tourism, government, e.g., Yellowknife, NWT.

Adding other projects to the economic base of a new mining community will moderate, although generally not eliminate,

the major problems associated with single project mining communities. Community stability, both long and short run, will usually be enhanced, although the extent depends a great deal on the nature of the additional project(s). In general, the greater the number of projects and the greater the dissimilarity among these projects, the greater the degree of community stability. In terms of project types, the contribution to stability of an additional project is likely to progress from highest to lowest, according to the following categories.

i Renewable resource projects; manufacturing that does not use products from mines in the community's economic base; central or regional operations of senior governments; major government sponsored institutions, e.g., a defense base.
ii Tourism (exhibits significant seasonal variations).
iii Nonrenewable resource projects that are outside the mining industry.
iv Other mines involving different products.
v Mineral processing plants that upgrade products from mines in the community's economic base; other mines involving the same product.

Projects in the first two categories offer the best prospects for long-term stability because they do not involve depletable resources and could conceivably continue in perpetuity. Projects in the last three categories, which all involve or rely on depletable resources, may lengthen a community's life, but do not remove the specter of future loss of all projects in the community's economic base.

In regard to short-term stability, the first three categories are superior to the last two, because they are unrelated to the mining industry and hence would be less likely to experience cyclical changes at the same time as mining activity. The final category (mineral processing or mines with the same product) is by far the poorest, because of the close relationship to the product of the basic mining project. In some instances, this form of diversification can exacerbate rather than moderate the stability problem.

One type of diversification not encompassed by the previous categories is making the community a regional service centre. The mining community, because of its size, becomes a shopping and service centre for residents of other smaller communities in the surrounding region. This helps to moderate the effects of short run fluctuations in mining activity, although long-run instability associated

with mine closure would not be alleviated. When a mine closes, the sizable population which provides the market for the variety of goods and services that makes the community attractive to residents of other communities[7] disappears and with it the basis for its role as a regional service centre.

As well as improving stability, adding projects for a community's economic base will result in a larger community with a better choice of public and privately provided goods and services. The presence of one or more additional major employers plus a larger service sector will increase the variety of employment opportunities in the community.[8] Given the increased stability and choice, a diversified community should experience lower turnover rates than its single project counterpart. The chances of achieving the critical level of population needed to become a regional service centre and thereby further enhance short-run stability are also improved.

While diversified communities are a definite improvement over single project communities in terms of socio-economic problems, there are some severe limitations which greatly diminish their appeal. The overwhelming weakness of the diversified community is that its existence involves a series of requirements that occur infrequently. To develop a new diversified mining community, at least two economically viable projects, including a mining project, are required. The projects must be identified prior to the development of the community and each project must be ready for development in the same time period, i.e., not over ten years apart. Also, prior to the advent of commuter rotation, these projects had to occur within reasonable proximity, i.e., not more than 160 to 200 kilometres apart. With commuter rotation, the latter requirement has been greatly relaxed so that the feasible distance is now at least ten times greater. To facilitate community planning, the two projects should also occur in the same province or territory. The combination of circumstances needed to justify a new diversified community is not likely to occur frequently, although with the increased distance possibilities created by commuter rotation, the probability of occurrence will be

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7. Experience suggests that a population of at least 5,000 is necessary.
8. The number of major employers may not always increase. This is particularly true where the added project involves mineral processing. The company operating the mine and mineral processing projects are often the same one.

considerably greater in the future. (A recent example is two neighboring coal mines in northeastern B.C. which led to the creation of the new town of Tumbler Ridge.)

The situation could conceivably be remedied somewhat by government policy. The requirements for developing a diversified community could be satisfied by forcing a delay in the development of a single project until another project materialized. In our view, this could have a very detrimental effect on mineral exploration and the performance of the Canadian mining industry in the long run.

The uncertainty of developing another suitable project could create a very lengthy delay. In the meantime, a change in the economic environment could jeopardize the economic viability of the original project. If this happens, the company wishing to develop the resource and the economy as a whole will have lost possibly forever, an income and potential export producing opportunity. Then, if a suitable additional project were discovered, it would have to wait until a replacement for the original project was found.

Even if this worst case did not materialize, the waiting policy would introduce a significant new dimension of uncertainty into the already highly risky mining industry. Mining companies could no longer be confident that they would be able to develop economically viable mines soon after discovery and proving of orebodies. Such a situation likely would deter mineral exploration.

In our view, where the circumstances are naturally condusive to developing a diversified community, every effort should be made to do so, however, delays in the development of projects should not be the means.

Conclusions

To conclude, the single project mining community is much maligned because of the problems that are associated with it. It provides, however, a very flexible means of responding to the community requirements of an industry characterized by vast areas, remote location, and total uncertainty about the timing, location and scale of future projects.

Alternatives to single project mining communities all reduce some of the associated problems, but at the same time, they are all less flexible. By far the best and most promising alternative is commuter rotation. It eliminates virtually all problems associated with mining communities while producing special advantages in terms of native and northern employment. It is quite flexible, although it does not appear to be applicable to projects with large work-

forces or projects in extremely remote northern locations. High transportation costs are a significant deterrent to this alternative.

A much less effective or promising alternative is the diversified community. It will generally moderate most of the serious problems associated with resource communities, however, it is applicable only in a very limited circumstances. The relocatable community is the least appealing alternative covered here. It addresses only the problem of long-term stability of the mining community and the circumstances under which it is applicable are also very limited.

In view of the above, the single project mining community deserves more serious consideration than it sometimes receives. There will be many circumstances in the future where it will be not only the most obvious, but also the most realistic way of meeting the community requirements of new mining developments. While every effort should be made to identify and assess all alternatives for satisfying such community requirements, care must be taken not to reject the single project community without careful assessment of its advantages.

THE DEVELOPMENT OF MINING COMMUNITIES IN BRITISH COLUMBIA: RESILIENCE THROUGH LOCAL GOVERNANCE

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1. Introduction

Mining Communities: Hard Lessons for the Future

The first years of the current decade have been troublesome for the Canadian economy. The faltering economy of the western world has prompted a good deal of material and human dislocation, especially in the mining industry and its dependent communities. The great mineral recession of 1981-82, in the words of the co-chairmen of a federal/provincial task force on mining communities, 'has tested and is increasingly testing the ability of companies to survive. It is bringing acute hardship to individuals, and it is leading to the virtual closure of some communities, possibly for good'.[1] In view of this situation, mining communities have recently been the focus of much interest. Ways of alleviating present economic and human hardships and of avoiding repetition of the crisis of winding-down have been sought.

Resilient Decision-Making

Single industry communities are a common phenomenon in Canada. Based on 1971 data, one study found that one-

1. Task Force on Mining Communities, Report, Ottawa, 1982.

quarter of Canada's non-metropolitan population lived in over 800 single industry communities, about 140 of which were classified as mining communities. A total of 22 mining communities (see figure 1) were located in British Columbia.[2]

In common with all single industry communities, the character of mining communities lies in the singular nature of their economic base and the predominance of the industry in community life. In effect, as goes the industry, so goes the town. Mining communities are consequently precarious entities due to the notoriously volatile nature of mineral markets and activities. Volatility and variation can stem from any of several factors. World markets for resources generate long- and short-term cyclical fluctuations in production. Technology change, seasonality, strikes, organizational restructure, changes in government policy, and even climatic or weather conditions are all things which lead to the alteration of levels of production.

The effects of volatility can be seen in British Columbia. The value of mineral production reached a record level in 1980. Today, just three years later, we see this situation in the province. There are 33 operating metal and coal mines of a significant size having a combined employment of approximately 15,000 (figure 2). Of these, three molybdenum and three copper mines are under long-term or indefinite closure. Approximately 2600 employees or 17 percent of the mine workforce is unemployed. More critical, from our perspective, is the fact that four of these mines are adjacent to communities that could be classified as highly dependent on the mining industry for employment. In addition, the permanent closure of two mines within the next year has been announced: Westfrob Mines at Tasu, and Canada Wide Mines at Stewart.

Planning for resource communities - mining communities in particular - necessarily takes place in an environment whose only constant is change. Volatility, uncertainty, unpredictability and at times incalculability prevail. In this environment rests the decision maker, a person who cannot trust what is 'known' today because of the likelihood that today's 'facts' will be betrayed by unpredicted future events. The Task Force on Mining Communities was correct to point out the need for flexible or resilient decisions in this decision-making environment.[3] A resilient decision is

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2. Dept. of Regional Economic Expansion, Single Industry Community, Ottawa, 1977.
3. TFCM, Report, p. 36.

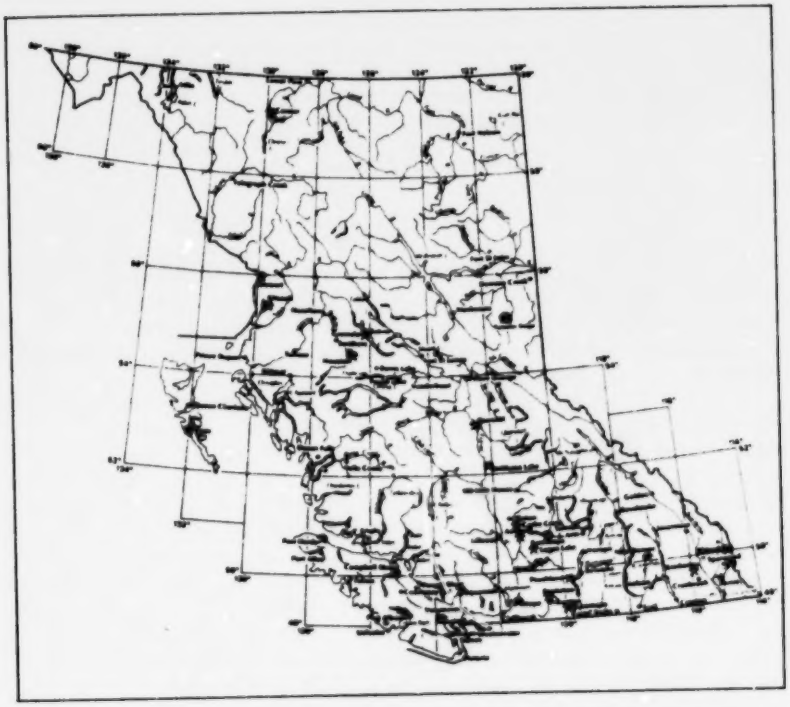

Figure 1. Mining Communities in British Columbia

LEGEND
Mill capacity over 4500 tonnes per day
Mill capacity under 4500 tonnes per day
Under construction or reactivation
SCALE
Kilometres
1. Afton (Copper), Kamloops
2. Bell (Copper), Babine Lake
3. Bethlehem (Copper), Highland Valley
4. Boss Mountain (Molybdenum), Big Timothy Mountain
5. Brenda (Copper, Molybdenum), Peachland
6. Cariboo (Gold), Hope
7. Cassiar (Asbestos), Cassiar
8. Climax (Molybdenum), Alice Arm
9. Craigmont (Iron), Merritt
10. Endako (Molybdenum), Endako
11. Equity (Iron Ranch)(Copper, Gold, Silver), Houston
12. Fish Remourrin (Granduc) (Copper), Stewart
13. Fording (Coal), Fording River
14. Gibraltar (Copper, Molybdenum), McLeese Lake
15. Granisle (Copper), Babine Lake
16. Highland Bell (Silver, Lead, Zinc), Beaverdell
17. Highmont (Copper, Molybdenum), Highland Valley
18. Island Copper (Copper, Molybdenum), Rupert Inlet
19. B.C. Coal (Coal), Sparwood
20. Lornex (Copper, Molybdenum), Highland Valley
21. Lynx (Copper, Silver, Lead, Zinc), Buttle Lake
22. Nanthar (Lead, Zinc, Silver, Gold), Alice Lake
23. Silmonac (Silver, Lead, Zinc), Sandon
24. Similkameen (Copper), Princeton
25. Sullivan (Silver, Lead, Zinc), Kimberley
26. Tasu (Iron, Copper), Tasu
27. Utica (Silver, Gold, Lead, Zinc), Keremeos
28. Western Gypsum (Gypsum), Windermere
29. Byron Creek (Coal), Corbin
30. Teck (Coal), Tumbler Ridge
31. Quintette (Coal), Tumbler Ridge
32. Goldstream (Copper, Zinc), Revelstoke

Figure 2. Principal Mines in British Columbia : 1982

one which provides viable options even if events turn out not as expected. As applied here, the outcome of resilient decision making is expected to be resilient communities, communities able to withstand the periodic or sporadic economic misfortune that besets all resource communities at some point in time.

Resilience Through Local Governance

The theme of this paper is resilient decision making. Recent practical experience with communities serving several new resource developments in British Columbia is used to illustrate how resilient decision making can be accomplished when the role of local government is featured in the process of community planning and development.

The paper examines decision making at three different levels. At the first and most general level, readers are introduced to the notion of a 'resource community planning framework'. One particular resource community planning problem - choosing settlement planning options - is used to establish the rationale for a planning framework. For new resource developments, decision makers are usually confronted with a broad range of settlement options, ranging from long-distance commuting from existing settlements to the development of new settlements. Establishing one's preferred settlement option from among the available range tends to be a complicated exercise, particularly in view of the known volatility and uncertainty that surrounds resource development. The resource community planning framework is an approach to decision making adapted to this complex and uncertain environment.

An important consideration in evaluating settlement options is community governance. Community governance, i.e. the formal and informal structures of decision making and control within communities, has been shown to be an important ingredient of social vitality. The quality of community governance can also have a bearing on residents' perceived quality of life. A second level of decision making, approaches to communty governance, is therefore examined. Three generic approaches to community governance are compared and contrasted, here labelled private governance, local governance and provincial governance. The three approaches are differentiated by their central actors: a resource company, a local government and a provincial government agency respectively. In British Columbia, a particular form of local governance has become the preferred approach.

The selection of the local governance approach to resource community development is apparently not common practice in Canada. In British Columbia, certainly, local governance is a marked departure from the private governance or company town approach to community development which was once the norm. The 'instant towns' of the 1960s and early 1970s were supposed to bring into practice the local government approach to community development. However, the instant towns initially did not differ in critical respects from the company towns they were designed to replace. Only recently has the local governance approach emerged as something distinctly different. This is a consequence of learning both from experience in resolving the problems of the instant towns and from research on the resource community development problem in general. Implementing the local governance model in recent years has required that a new set of problems be old problems. The third focus of this paper is an examination of the requirements for implementing the local approach to community governance.

The purpose of this paper is to demonstrate how resilience can be built into resource community decision making. The paper examines in sequence:

i a resource community planning framework, illustrated through a discussion of the process of choosing settlement options;
ii the matter of community governance, one dimension of the settlement options problem;
iii the particular problems posed by the local governance approach to resource community development.

The paper is based on recent experience with several new resource developments in the province, notably the development of the northeast and southeast coal deposits.

The chief limitation of this paper is its focus on the gearing-up phase of a resource community's life cycle, roughly corresponding to the first three of Lucas' four stages of community development, namely construction, recruitment and transition.[4] Problems associated with Lucas'

4. R.A. Lucas, Minetown, Milltown, Railtown: Life in Canadian Communities of Single Industry, (Toronto: University of Toronto Press, 1971).

fourth stage, maturity, are not dealt with at length. Bradbury and St-Martin[5] have proposed the addition of two further stages of development: winding-down and closure. These two phases are not discussed in this paper. Though stability, winding-down and closure are worthy of examination in themselves, the emphasis here is on prevention: planning ahead to avoid the problems of decline. Amelioration of the negative effects of stability, winding-down or closure after the fact can only be a palliative. Prevention offers a high degree of freedom to design solutions; amelioration offers many fewer degrees of freedom. The serious social consequences of decline can be mitigated best by making today's decisions resilient. While the paper's focus is on the growth phase of community development, it will demonstrate how the prospect of eventual decline can be considered in current deliberations on settlement options, approaches to community governance and implementation of the local governance model.

5. J. Bradbury and Isabelle St-Martin, Winding Down in a Quebec Mining Town: A Case Study of Schefferville, Monograph, Department of Geography, McGill University, 1982.

2. Resource Community Planning Framework

The Resource Community Planning Problem

This chapter develops the notion of the 'resource community planning framework.' Resource community planning is in large part a process of reconciling the diverse interests of different actors in resource development - resource companies, workers, residents, governments - each of which is influenced by different economic factors. The planning process is set against a backdrop of the uncertainty and economic volatility which is characteristic of the resource sector. It must deal with both growth and eventual decline. The resource community planning framework is a style and method of decision making adapted to this environment. Its purpose is to create resilient communities through making resilient decisions. A resilient community is adaptable to changing conditions. It is able to recover from or adjust easily to economic downturn or decline.

An especially complex resource community planning problem will be used to introduce the notion of the planning framework, this being the issue of choosing settlement options, ie. choosing how and where to house workers and their dependents. Choosing a preferred settlement option is a fundamental aspect of resource community planning. This decision is the first line of defense against the problems typically associated with mining communities, in particular the problem of dealing with dramatically altered economic conditions.

Defining Settlement Options

Many decisions must be made by resource companies and governments when planning for the exploitation of natural resources. One key decision concerns the means by which the company's workforce is housed and provided with community services during non-working hours. Integrally related is the decision about how to manage the workers' commute to work. These decisions are important to the resource company. They may affect the cost of the resource venture. More importantly, they may influence, positively or negatively, the productivity of company workers and, in turn, the profitability of the venture. The settlement/commute decision is likewise important to government. Since community living is an important component of social well-being, governments are understandably anxious to make

communities livable; that is, satisfying places in which to live. Moreover the government's concern may extend beyond the lifetime of any single resource venture; hence, governments must consider the long-term resilience of communities.

Typically, for new resource developments, settlement options are many and varied. A taxonomy of generic settlement options must include three factors. Industrial workers may be hosted in a new town specially constructed for the resource venture; or they may be hosted by way of an expansion to an existing town. The workers' settlement may be located in or out of the resource region. Finally, the workers' commute from the host community may be sponsored, that is organized and subsidized, by the company; or it may be unsponsored. This three-way taxonomy of settlement options yields eight conceptually, if not practically, valid options. This is displayed in table 1. Of course a settlement option for any particular resource development may consist of any combination of discrete options shown in this table.

Table 1

TAXONOMY OF GENERIC SETTLEMENT OPTIONS

	Type of Town			
	Extra-regional		Intra-regional	
Type of Commute	New Town	Existing Town	New Town	Existing Town
Sponsored	1	3	2	3
Unsponsored	1	2	3	3

Key: 1 denotes extremely improbable.
2 denotes possible but improbable.
3 denotes eminently possible.

Settlement options are one thing; preferred settlement options are another. It is one matter to specify conceptually valid settlement options for any particular resource development. A more fundamental task, however, is to examine settlement options rigorously and critically and to specify preferences. Establishing a preferred settlement option is a difficult exercise. It is a process of balancing the often conflicting viewpoints of several actors. A num-

ber of factors must be carefully weighed if resilient decisions are to be made.[6]

Evaluating Settlement Options

Four factors are germane to the evaluation of settlement options: regional settlement structure; distance; nature of the resource development; and opportunities for diversification. This section discusses these factors briefly from a basis of practical experience,[7] the object being to establish their relevance in achieving resilient settlements.

Distance

Distance is an important factor in the selection of settlement options. Distance is a multi-dimensional variable. It can mean distance from services or distance from work. It can mean actual distance, perceived distance or temporal distance (commuting time). The perception of distance, moreover, varies between the company, the employee and the residents of a resource community. For example, community residents usually perceive distance as isolation from a variety of services; but community residents in the guise of workers perceive distance most acutely as distance from work.

While distance in itself is not a significant factor in developing resilience, it is closely related to another factor, regional settlement structure. Longer commuting distances can be tolerated if the commute is from a highly attractive, established community.[8] Resilience can sometimes be increased by selecting settlement options involving long-

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6. Ministry of Municipal Affairs, Resource Community Planning: Framework for Choosing Settlement Options, by R.A. Rabnett and G. Paget, (Victoria: Province of British Columbia, 1979).
7. Ministry of Municipal Affairs, et al., Northwest Economic Development Opportunities. Settlement Options: A Framework for Decisions, (Victoria: Province of British Columbia, 1982).
8. Ministry of Municipal Affairs, Resource Community Planning: Economic Implications for Resource Development Settlement Options, by Vischer-Skaburskis, Planners, (Victoria: Province of British Columbia, 1980).

distance sponsored commuting. This is precisely the motivation behind British Columbia's decision to reject the establishment of a new community at Forsyth Creek in favour of expanding the existing community of Elkford.[9]

Regional Settlement Structure

In part, the preferred settlement option for any particular resource development depends on the existing settlement structure in the region. Sometimes a resource development may lie near an existing settlement but other times not. If not, the choice between long-distance commuting and establishing a new settlement must be made.

The internal characteristics of settlements are germane to the evaluation of settlement options. For example, an important consideration in evaluating settlements, either existing or new, is community governance. Community governance is an important ingredient of community social vitality.[10] Existing communities may often have well established structures, both formal and informal, of community governance. In other cases community governance may be weak and residents may neither be satisfied with their social environment nor feel capable of effecting change. This may impair the perceived quality of life, with negative consequences all around.

With new settlements, of course, community governance is something which must be developed from scratch. Options exist. To develop a pure company town is to opt for what might be termed 'private governance'. Alternatives are 'local governance' and 'provincial governance': these are options in which a local government or a provincial government agency respectively replace the resource company as the central organizational actor in a settlement. Each different approach to governance in a new community will yield different outcomes and may affect one's evaluation of settlement options. Resilience is most easily achieved through the local government approach to community development, but the prerequisites for local government are not always present in new communities.

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9. Ministry of Municipal Affairs, Selection of a Townsite for the Elk River Coal Project, (Victoria: Province of British Columbia, 1979).
10. Roy Bowles, Social Impact Assessment in Small Communities, (Toronto: Butterworths, 1981), pp. 41-62.

Nature of the Resource Development

The nature of the resource and the nature of the resource venture is an important consideration in choosing a settlement option. The exploitation of renewable resources has different settlement implications than the exploitation of nonrenewable resources. Within the group of nonrenewable resources, distinctions must also be made. The settlement implications of large or long-duration projects are different from those of small or short-duration projects. The implications of coal projects are different from those of base metal projects and projects of other types.

These characteristics of a resource development will help determine whether new, permanent settlements are feasible or whether other more flexible and less permanent options are preferred. For example, the nature of the coal resource significantly influenced the choice of the new town option to service coal development in British Columbia's north east coal region. Resource community planners must also take into account the well-known volatility and uncertainty that prevails in the resource development environment.[11] Settlements which are able to or are designed to withstand periodic variation and sporadic crises are preferred over those that cannot.

Opportunities for Diversification

The potential for diversification influences one's choice among settlement options, particularly when the initial development is geared toward nonrenewable resource extraction. In the absence of diversification opportunities, settlements serving nonrenewable resource developments have a predictable life cycle: a period of growth, a period of relative stability, followed by a period of decline ending in extinction.[12,13] Clearly, the better the potential for di-

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11. John Bradbury, 'The Impact of Industrial Cycles in the Mining Sector: The Case of the Quebec-Labrador Region in Canada', Mimeograph, Department of Geography, McGill University, 1983.
12. R.A. Lucas, Minetown, Milltown, Railtown: Life in Canadian Communities of Single Industry. (Toronto: University of Toronto Press, 1971).
13. J. Bradbury and Isabelle St-Martin, Winding Down in a Quebec Mining Town: A Case Study of Schefferville, Mimeograph, Department of Geography, McGill University, 1982.

versification, the more favourable do permanent settlements appear compared to temporary settlements or work camps. Furthermore, diversification potential can improve the feasibility of new settlements relative to existing settlements, particularly if a new development can serve as a catalyst for further regional development.[14]

Choosing Settlement Options

Settlement option decisions are complex and multi-dimensional. Several factors are involved: e.g. distance, regional settlement structure, nature of the resource development, diversification potential. Individually, these factors are themselves complicated. Arrayed, they produce a perplexing system of influences on the settlement option decision. Each factor tends to work in a different direction. There is no simple method, checklist, or mathematical formula that can lead to an easy decision. Moreover, due to the uncertainty and volatility that prevails in the resource development environment, every decision is exposed to the likelihood of betrayal by unpredicted future events.[15]

The settlement option issue does not lend itself to bold resolution by way of categorical prescriptions or plans. In British Columbia, research on the settlement option issue has not aimed at positing a universally preferred settlement option. It has avoided this for the salient reason that no such thing exists. Contrary to the actions of some jurisdictions, it makes no sense in the abstract to prescribe or proscribe any settlement option. Categorical policy utterances are not required. What is needed is a certain process of decision making, one that is attuned to the observed environment. This decision-making process must promote the making of resilient decisions. A resilient decision is one which provides viable options even if events turn out not as expected. The 'resource community planning framework' is put forward in this vein.

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14. InterGroup Consulting, Economic Diversification in Mining Communities, TFMC Working Paper 2, (Ottawa: Federal/Provincial Task Force on Mining Communities, 1982).
15. Ministry of Municipal Affairs, Resource Community Planning: Framework for Choosing Settlement Options, by R.A. Rabnett and G. Paget, (Victoria: Province of British Columbia, 1979).

Resource Community Planning Framework

In British Columbia, a policy framework has been developed to guide decision makers grappling with resource community planning problems. The framework is not a definitive policy or plan. In fact, mechanistic policy specifications and master plans are for the most part renounced as being unsuited to the convoluted, risky environment in which settlement decisions are made. The resource community planning framework is a normative, process-oriented, analytical approach to decision making. It is analytical in that research and analysis is relied upon to generate solutions or, more characteristically, to ground the processes of negotiation and compromise. It is process-oriented, meaning that responsiveness to diverse and changing economic forces is consciously sought. The framework is normative in the sense that, to a certain extent, preferences or predispositions are built into the process at critical points. The objective of the framework is to develop resilient communities.[16]

The framework approach to resource community planning may be contrasted to the structure plan approach. A structure plan specifies how settlements in a region ought to develop by predetermining and specifying the roles of various settlements and their interrelationships.[17] The framework approach is distinctly different. The resource community planning framework yields results through the aggregation of discrete decisions which, by means of the framework, are shaped into a cohesive, intelligible whole. Preemptive decision making is avoided. Any decision that is reached at any point is usually the least decision possible, least in the sense of minimizing the options foreclosed while remaining true to one's overriding goals. When decisions are made, they are made intelligently within the bounds of a superordinate framework which itself has purpose and direction. The planning framework is built upon the idea of comprehensive consideration of incremental decisions.

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16. Gary Paget and Richard Rabnett, 'Regional Economic Development and Community Resilience: A Policy Framework', Prepared for Canadian Regional Science Association Annual Conference, Vancouver, June 1983.
17. N.H. Richardson, 'Insubstantial Pageant: The Rise and Fall of Provincial Planning in Ontario', Canadian Public Administration 24:4, 1981, pp. 563-586.

The key notion embodied in the planning framework might be termed disciplined incrementalism, that is, decision making which combines features of disjointed/incremental and rational/comprehensive planning.[18] Compared to the former, disciplined incrementalism exhibits greater scope for rational goal setting as well as accountability deriving from stated goals. Compared to the latter, there is tolerance for ambiguity and constraints, and sensitivity to the risks of categorical decision making. Disciplined incrementalism is apparently compatible with approaches to decision making advocated by others. In the field of evaluation research, Patton promotes a view of a policy science geared toward the diffuse and gradual reduction of decision-maker uncertainty, rather than toward clearcut 'organization-shaking' change.[19] Disciplined incrementalism might also be compared (in spirit) to Harold Lasswell's concept of configurative analysis, which is 'the gradual creation of a sense of wholeness, and of assurance, in the discovery of interdetail connections within the all-encompassing totality'.[20]

The resource community planning framework has been applied to resource community planning problems in several regions of British Columbia. Its usefulness in analyzing settlement options has already been illustrated. A different application of the style and method of the planning framework also warrants brief discussion. An examination of municipalities in the province's Highland Valley region, southwest of Kamloops, has recently been completed.[21] The economy of this particular region is dominated by copper mining. Five dormitory communities are within daily commuting distance by road from the three existing mines. An analysis of this region indicated considerable resilience to marked upward expansion, provided:

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18. Andreas Faludi, ed., A Reader in Planning Theory, contributions by Etzioni, Faludi and Lindblom, (Oxford: Pergamon Press, 1973) pp. 113-229.
19. Michael Quinn Patton, Utilization-Focused Evaluation, (Beverly Hills: Sage Publications, 1978).
20. Quoted in Douglas Torgerson, Industrialization and Assessment: Social Impact Assessment as a Social Phenomenon, (Toronto: York University Publications in Northern Studies, 1980) p. 12.
21. B.C. Ministry of Municipal Affairs, forthcoming.

i an open settlement policy was pursued by new resource companies, meaning that worker 'lock-in' to one particular town, a practice followed by existing companies, was avoided;

ii industrial property tax base sharing was adopted along with the open settlement policy, tax base sharing being a technique for adjusting the flow of property tax resources to communities in proportion to the fiscal demands placed on the communities through hosting the industrial workforce.

On the other hand, this same region showed how resilience can be lacking in communities. One town in particular had acquired an extensive infrastructure in anticipation of growth which never materialized. This created a situation of vulnerability, not resilience. An analysis of the downside risk for this town showed that retrenchment could produce very severe fiscal problems for the municipal corporation.

Conclusion

The resource community planning framework is a cohesive edifice of policy preferences and instruments and a storehouse of analytical tools which has resulted in a decision-making process well adapted to the economic uncertainty and volatility of the resource sector. The framework is process-oriented: it is as much a style of planning as it is a concrete entity. It aims to make today's settlement decisions resilient over the longer run. The most significant decisions, in the sense of the greatest freedom of choice, relate to choosing settlement options. Nonetheless, the framework is equally applicable to a range of incremental and small scale decisions that must be made on a day-to-day basis.

3. Benefits of Local Governance

The previous chapter outlined some of the criteria that can be used in evaluating settlement options. One of the factors discussed was the need to examine the internal characteristics of a candidate settlement, whether it be an existing community or a possible new community. One important internal characteristic is community governance, a factor which can signficantly influence one's evaluation of options. The question of community governance has significance beyond the issue of selecting settlement options. In fact it has significant implications for creating resilient settlements. This section consequently looks at the applicability of alternative approaches to community governance, with particular reference to recent experience in British Columbia.

The Concept of Community Governance

The concept of governance recognizes that the formal institutions of government are not the only focus for decisions and control in communities. The notion of community governance embraces or is inclusive of formal government but it recognizes the undeniable effect on the nature of urban life and the contribution made to the urban community by the activities of many organizations, public and private, statutory and voluntary.[22] The concept of community governance is useful for examining alternative organizational structures for the resource-based community.

Alternative Approaches to Community Governance

Historically, in British Columbia and in Canada as a whole, a number of different approaches to resource community governance have been evidenced. In fact, at the present time in British Columbia a number of distinctly different types of resource communities co-exist as legacies of earlier periods of development. Three ideal types or model approaches to community governance can be isolated: private

22. D. Diamond and J.B. McLoughlin, Education for Planning: The Development of Knowledge and Capability for Urban Governance, (Oxford: Pergamon Press, 1973).

governance, provincial governance and local governance. The key dimensions which distinguish the three approaches are the varying responsibilities of the resource company, the provincial government, and the local government for land allocation and for planning, developing and financing the community.

In the private governance approach, the resource company plans, finances and develops the community as well as allocates land. Historically, this was the predominant approach to resource community development in British Columbia. The provincial government opted to have the company bear all investment costs and bear the risks of potential failure of the resource venture. In its purest form, private governance results in the true 'company town'. The company town is administered by the resource company. Its housing stock and its commercial and recreational services are owned and operated by the company.

In the mid-1960s, British Columbia's 'instant towns' legislation was introduced. Instant towns were to replace the company towns. Planning, finance, development and land allocation continued to be undertaken by the company during the gearing-up phase of a town's development, but local government was created and town operations were gradually turned over to an elected council. Moreover, worker home ownership was encouraged.

The instant towns were a significant improvement over the different approaches to resource community pure company towns of the earlier era of development. Nonetheless, review of the instant towns experience indicates that, in the earliest phases of their development, the approach to community governance was merely a variant of the private governance model.[23] Merely to create a legal umbrella for local governance was found not to be sufficient to ensure the substance of genuine local self-governance. Significantly, however, the instant town legislative provisions, sections 9 and 11 of the Municipal Act, have proven to be remarkably adaptable and flexible. These same sections have become the basis for the achievement of true local self-governance in future resource community development.

In the provincial governance approach, the provincial government assumes responsibility for development of the

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23. John Bradbury, Instant Towns in British Columbia: 1964 to 1972, Simon Fraser University: unpublished Ph.D. dissertation, 1977; and 'Instant Resource Towns Policy in British Columbia, 1965-1972', Plan Canada 20:1, 1980, pp. 19-38.

community; a provincial agency plans, finances, builds and to some degree operates the community, as well as allocates land. The best example of this approach is the development of Leaf Rapids by the Province of Manitoba.[24] The British Columbian government has opted not to develop any of its resource towns in this fashion.

In the genuine local governance approach, a local government corporation immediately and independently assumes responsibility for development of the community: it plans and develops the community's services and allocates land. Moreover, it operates the town using conventional municipal financing techniques, including property taxation, grants from senior governments and user charges/benefits levies. Conventional financing may also be combined with cost sharing with the resource company. In British Columbia, the local approach to resource community development has been carried out both by autonomous local governments, as in Elkford, and by provincially-appointed local goverments, as in Tumbler Ridge.

The local approach to development has emerged as British Columbia's preferred approach. However, it is recognized that this approach is not universally applicable. That the local approach has been followed in recent times reflects a particular trade-off of costs and benefits in particular situations. Not every case is similar. Indeed, circumstances are imaginable where the full-fledged company town might be the optimal resolution of the community governance issue. This would perhaps be true where the resource venture was extremely precarious, isolated and small. Staunch adherence to the local governance approach would, in this situation, be ill advised.

Local Governance in Practice

The local approach to community governance has established itself as the preferred approach in British Columbia. This approach was selected following a deliberate review of the implications of the chief alternatives.[25] While the legislative

24. Forum, 'Leaf Rapids, Manitoba', Canadian Insitute of Planners: Forum, February 1976, pp. 4-6.
25. Ministry of Municipal Affairs, Alternative Methods of Financing and Developing Resource-Based Communities, by Thompson, Berwick, Pratt and Partners (R.A. Rabnett and A. Skaburskis), (Victoria: Province of British Columbia, 1977).

basis for the local governance approach was achieved in an earlier era, the first successful implementation of the local approach to community development was achieved in Elkford, located in the south east coal belt, and subsequently in Tumbler Ridge, the new community serving the massive northeast coal development.

Elkford

The Elk Valley is home to five mines providing mostly metallurgical coal for the Japanese market. The mines are hosted by three towns: historic Fernie and the now-established new towns of Sparwood and Elkford. Elkford was originally developed in 1971 by Fording Coal under the province's 'instant towns' legislation. By the mid-1970s, Elkford was beginning its transition toward becoming a typical, self-directed mining community. However, the aura of the company town lingered.

Over the past few years, the Elk Valley has been the scene of considerable coal company investment to boost yearly capacity to about 15 million tonnes of processed coal. Much of the resulting population increase in the area has occurred in Elkford. Since 1978, Elkford's population has risen almost 50 percent to today's level of about 3500 persons.

The announcement of a dramatic increase in coal production brought the issue of expanding Elkford to centre stage. At the time, Elkford was a village municipality. Its financial and administrative capabilities were an unknown quantity, given the marked changes the town was likely to undergo. It lacked a community plan and lacked control of key parcels of land in the townsite, a legacy of the town's creation in 1971. Housing was partly self-owned and partly rented but most was controlled in some fashion by Fording Coal.

In spite of these problems, a decision was reached which would enable the local government to take charge of its own expansion. With provincial assistance and encouragement, studies were launched into the likely costs and benefits of expanding the town. Steps were taken to ensure that land allocation in the townsite was under control of the village, a significant event. Other key events include:

- a local/provincial project committee was set up to supervise the expansion program;

ii a professional project coordinator was hired by the village;
iii a comprehensive community plan was developed;
iv a local/provincial agreement was signed enabling the village to develop residential subdivisions;
v critical human services, police and education in particular, were secured;
vi plans were made for the redevelopment of the town centre and the development of an industrial park;
vii an industrial property tax base sharing scheme was introduced to the Elk Valley region;
viii a professional human services planner was hired to help work out, with town residents, a human services plan.

Now the expansion of Elkford is nearly complete, though incremental change will persist. Elkford has not escaped the world recession untouched, but many observers and residents remain pleased with the results which have been achieved during the town's self-directed expansion. In fact, Elkford has been selected as one of Canada's outstanding community development projects for presentation to the 1984 International Exposition of Rural Development.[26]

Tumbler Ridge

Investment in the northeast coal resource lagged behind the expansion witnessed in the southeast by about two years. Two new mines are nearing completion which together are expected to employ some 1950 persons in the processing of nearly 9 million tonnes of coal per year. Located in virgin territory well south of Dawson Creek, the developments could draw on no existing community resources. Plans were therefore laid for the development of a wholly new town.

At this time (late 1983), Tumbler Ridge is still under construction. Commercial buildings are being erected; a town hall has been completed; health, social service and education facilities are operating or nearing readiness; and apartments, mobile homes and single-family residences are quickly being occupied. The current population is estimated at 1500 persons, exclusive of temporary construction personnel. This should increase to a full production population of 5800 persons by the fall of 1986.

26. Elkford, Community Development Project: Elkford, British Columbia, (Elkford: The District of Elkford, 1983).

A variant of the local approach to community development was selected for Tumbler Ridge. An organizational structure which would balance the twin aims of development efficiency and social sensitivity was created. The province appointed a commissioner to act as 'Mayor and Council' and to lead the development of the town. The appointed commissioner will continue under contract to perform this role until full local self-government is established. To assure maximum social sensitivity, a capable person having local government experience and long established roots in the region was consciously sought. A former mayor of Fort St. John was eventually appointed. Subordinate to the commissioner are a project manager and town manager. A key feature is that a formal municipal corporation was put in place in Tumbler Ridge at the outset, even before permanent residents began to arrive.[27]

Other aspects of the Tumbler Ridge development process warrant mention:

i a grant of Crown land to the municipality was executed, ensuring local control over the allocation of land;
ii a comprehensive community plan was developed;
iii a local/provincial agreement was signed enabling the district to develop residential subdivisions;
iv plans were made for a cohesive town centre development;
v a community development officer with responsibility for 'community building' was hired and placed on site as soon as permanent residents began to arrive;
vi a secure financial base was established by including the mines on the town's tax base.

Certain parallels with the Elkford's experience will be apparent. And, like Elkford, Tumbler Ridge has attracted attention outside British Columbia. In particular, Tumbler Ridge's approach to planning and the provision of com-

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27. Gary Harkness and Gary Paget, 'Community Building to Support Resource Development: The New Community of Tumbler Ridge', Paper presented at Western Regional Conference, Engineering Institute of Canada, Calgary, November 1982.

munity services[28] and to the prevention of crime[29] have both been examined in national journals.

A significant event for the immediate future in Tumbler Ridge is transition to conventional municipal status: that is, the replacement of government by appointed commissioner with full self-government. This will be a gradual process. The town's Letters Patent specify that the process will be completed by 1987. The transition will begin with appointment of three local residents as aldermen in the fall of 1983. It is expected that a fully elected council including mayor will assume control well before 1987.

The Benefits of Local Governance

Public Participation

The local governance approach has general validity in the context of democratic society and specific value in managing the resource community development problem. Many observers have written of the benefits of local government. The British peer Redcliffe-Maud, in his well known report on English local government, had this to say:

> Local government is not to be seen merely as a provider of services.... The importance of local government lies in the fact that it is the means by which people can provide services for themselves; can take an active and constructive part in the business of government; and can decide for themselves, within the limits of what national policies allow, what kind of service they want and what kind of environment they prefer.[30]

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28. Mark Budgen, 'Tumbler Ridge: Planning the Physical and Social Development of a New Community', Habitat 26:1, 1983, pp. 8-12.
29. Richard Labonte, 'Crime Stoppers: Tumbler Ridge an Instant Town in British Columbia was Designed by a Team of Criminologists', Saturday Night, January 1983, pp. 7-8.
30. Lord Redcliffe-Maud, Royal Commission on Local Government in England 1966-1969, (London: HMS Cmnd. 4040, 1969) p. 10.

Redcliffe-Maud's conception of local government has specific validity in the context of the rapidly growing resource-based community. In contrast to provincial governance and private governance, the local approach to community governance places responsibility for a community's development with a body controlled by people who actually live there. This ensures that the people who will ultimately 'own' the community's problems will be given the opportunity and the means for resolving the problems in their own way. This essential point sharply distinguishes the local approach to community governance from the private and provincial approaches. Private and provincial governance are each, in a sense, technocratic in that they necessarily consist of technicians providing government on behalf of community residents.

The outcome of democratic governance in resource communities is likely to differ markedly from the outcome of technocratic governance. Items important to community residents are likely to be different than items important to technocrats. Proposed solutions to problems are unlikely to be the same. This differentiation stems from the fact that technocrats do not themselves experience the problems they attempt to solve. They are separate, remote, unlike the actual residents of the community. Recognition of the consequences of the technocrat's personal separation or remoteness from the problems of living in resource communities has provoked a search for methods to improve responsiveness.

One response of the technocrat has been to incorporate public participation in planning and decision making. Unfortunately, participation has a number of different meanings and, in the hands of the technocrat, it appears in many different disguises. Citizen participation can be defined as a process wherein the 'common amateurs' of a community exercise power over decisions related to the general affairs of the community.[31] But the exercise of power must contain some measure of authenticity. In Pateman's words, partial if not full participtpn is a requirement.[32] She identifies three types of participation. Full participation exists when all members of the community have equal power

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31. James Cunningham, 'Citizen Participation in Public Affairs', Public Administration Review, 32, 1972, pp. 589-602.
32. Carole Pateman, Participation and Democratic Theory, (New York: Cambridge University Press, 1970), pp. 67-84.

over decisions; partial participation occurs when some community members have power, others only influence; and pseudo participation occurs when some members have neither power nor influence, in which case participation is merely a technique for developing acceptance for decisions already made. The critical question is whether the technocratic approach can provide for anything more than pseudo participation, whether full or partial participation can be achieved, whether, in other words, the technocratic approach will actually permit a change to the conventional authority structure.

Participation is used to give private and provincial governance some of the characteristics of local governance, especially responsiveness. Laudable as this is, technocratic forms of public participation often fall short of achieving this goal. Too often, they are co-opted: incorporated into technocratic decision making to provide the appearance but not the substance of genuine or authentic participation. As Bowles points out, many agencies and officials appear to have worked with a 'top-down' conception of participation.[33] Participation is viewed merely as providing one additional type of data which officials, i.e. technocrats, must take into account. In contrast, a 'bottom up' view of participation regards participation as a process by which community members become active and effective participants in making decisions concerning those phenomena which potentially shape their lives.

An essential advantage of the local governance approach to community development is that local government has the inherent potential to organize and legitimize the bottom-up conception of public participation. The words 'inherent potential' are emphasized. Participation is not automatic and may require some form of delicate expert intervention to make it work effectively, a point considered below. Be that as it may, the essential point stands: the private and provincial approaches to community development have a very much more limited potential for developing partial or full participation in local decisions. They are, almost by definition, top-down in orientation. Decisions tend to be made on behalf of residents, and participation tends to be used as a means of persuading residents to acquiesce in these decisions. The practical effect may be that decisions are made which are inconsistent with resi-

33. Roy Bowles, Social Impact Assessment in Small Communities, (Toronto: Butterworths, 1981), pp. 51-62.

dents' true needs (as they alone can identify); and development of citizenship (gained only through effective participation) may be impaired.

Community Independence

Local governments tend in principle to achieve decisions more advantageous to community residents than do the alternative approaches. To point to a tendency, however, is far from guaranteeing that expected or potential results are achieved. Resource company domination of local politics, for instance, could prevent citizens from effecting their preferred solutions to local problems. Corporate domination could stem from the fact that local government politicans are simultaneously company employees or from the fact that the company might be far and away the largest taxpayer in a town.[34] Either way, the political efficacy of a self-governing community could be negatively affected. Political efficacy is 'the relative capability of a community to organize, mobilize resources, and act in an effective manner' in dealing with internally-generated or externally-generated problems.[35]

The problem of corporate domination, of course, reaches a zenith in the private approach to community governance, the company town. A community presumably could hardly be more subject to domination under the local governance approach. More to the point, such corporate domination as does exist in resource communities can be counteracted with conscious effort. Bowles points out that the traditions of community development, action research, social animation and advocacy planning each are directed at enabling communities to flourish through self-help.[36] Experts who work within these traditions see themselves as enablers as opposed to leaders.[37]

The local government in Elkford, for example, has been successful in encouraging voluntary participation and

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34. Ira Robinson, New Industrial Towns on Canada's Resource Frontier, Research Paper No. 73. (Chicago: University Chicago, Department of Geography, 1962), pp. 153-157.
35. Roy Bowles, Social Impact Assessment in Small Communities, (Toronto: Butterworths, 1981), p. 60.
36. Ibid.
37. Jim Lotz, 'Bridging the Gap: Modern and Traditional', Plan Canada 17:2, 1977, pp. 81-85.

facilitating community-initiated actions to improve the quality of life in the community. Using a community development approach, a broadly defined human services plan designed to knit together both formal and informal structures of decision-making and control in the community has recently been developed.[38]

Development Efficiency

A potentially more serious argument against locally-directed community development is that local governments are incapable of managing the process of resource community construction and/or expansion. The argument here would be that the necessary organizational expertise required to oversee a large-scale community construction program, within the strict constraints of time and budget, is not typically found in a municipal corporation. Development efficiency, therefore, might be sacrificed under the local approach to development.

On this point, two things may be said. First, this potential fault in local government can be overcome by the design of a suitable organization for town construction and the recruitment of the necessary expertise. For example, an organizational structure was developed for Tumbler Ridge which facilitated development efficiency by separating town construction per se from conventional municipal management. As of now, in the thick of the construction phase, the town effectively has two heads, both subordinate to the appointed commissioner:

i the professional project director is responsible for construction. This position will be phased out as the town is completed;
ii the municipal manager is responsible for town operations. This position is permanent.

This structure has been found to be reasonably effective. Tumbler Ridge is currently on time and on budget.[39]

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38. Michael Clague et al., Elkford Human Services Plan: the Preparatory Phase, (Elkford: The District of Elkford, 1982).
39. Gary Harkness and Gary Paget, 'Community Building to Support Resource Development: The New Community of Tumbler Ridge', paper presented at Western Regional Conference, Engineering Institute of Canada, Calgary, November 1982.

Second, it could be claimed that development efficiency is actually fostered through the local governance approach. Unlike the alternative approaches, the local approach takes regard of the comparative advantages of the different actors in resource development. Each actor is confined to a conventional role: the mining company mines, the provincial government supplies provincial services, and the local government handles local affairs. In effect, development efficiency is achieved through a form of deregulation. The local approach to community development reverses the trend toward requiring a great deal of company participation in social service delivery and community building and operation.

Social Development

More serious than the potential sacrifice of development efficiency is the potential sacrifice of social development. Achieving an appropriate balance between development efficiency and social development is particularly troublesome under private governance, if only because the central actor in the community, the resource company, is unlikely to be skillful in the social development field. In contrast, under the provincial governance approach the social development agenda has the potential to be much broader, since social development is in part the raison d'etre of provincial governments. But another problem afflicts this approach, namely the propensity of provincial agencies to approach the problems of particular localities from the 'outside in'. The outside-in approach means to solve problems first in response to the agency's needs, and only then, if at all, in response to the needs of town residents.[40]

For two reasons, the potential for social development would appear to be greatest under local governance. First, like provincial governance, the local approach would in most cases generate a far broader social development agenda than would private governance; but, unlike provincial governance, the local approach would have greater potential for tailoring its social development agenda to the actual wishes of residents. This stems from the fact that local government is closer to the people and is more likely to be representative of the full range of interests in the com-

40. W.H.C. Simmonds, 'Arctic Engineering Through Human Eyes', Materials Engineering in the Arctic, (Metals Park, Ohio: American Society for Metals, 1977).

munity. Second, locally-directed community development would appear to be best able to embrace and foster the broad concept of 'governance' used in this paper. At Tumbler Ridge, for example, the local government has assigned responsibility for social development efforts to one individual, the Director of Community Services. His primary task has been to encourage voluntary participation and to knit together all those public and private groups who can either control or influence social development in the community. In Elkford the previously mentioned Human Services Plan performed essentially the same function.

Long-Term Resilience

All things considered, local governance is capable of generating greater benefits than the alternatives. Through local governance, it is possible to:

i embrace and foster a broader concept of community governance;
ii elevate social development to a position of at least equal prominence to development efficiency;
iii actively involve local residents in the process of making decisions for themselves.

Local governance cannot achieve these goals automatically. In a structural sense, however, it is inherently more capable than private or provincial governance in developing communities which are satisfactory in the eyes of community residents.

The benefits of the local governance approach, it is important to note, may well extend beyond the growth phase of resource community development. A local government which survives or even prospers in the crucible of explosive expansion is well positioned to carry on effectively into the future, to mobilize internal and external resources and to respond to changes the ensuing years may bring. The local governance approach possesses an essential continuity lacking in the alternative approaches to community development. Once there, it is always there; once local people have developed the capacity to confront and solve problems effectively through their local government and through other means, their experience is likely to carry on indefinitely. In a word, the political efficacy necessary for long-term resilience will exist.

Political efficacy means, once again, the relative capability of a community to organize, mobilize resources and

act in an effective manner. It means the ability of community residents to provide services and solve problems for themselves in a manner they themselves prefer. Participation in local decision making is an indispensible element of political efficacy. As some observers have noted, genuine and authentic participative approaches to decision making in an industrial society are urgently required. Torgerson writes:

> The call for participation serves to recall an image of man not as a passive individual consumer... but as a creative actor with the capacity to define himself and, in concert with others, to give shape to his existence and his social world.[41]

Moreover, Torgerson expresses concern with the disjuncture or gap between technocratic or instrumental decision making and interactive or democratic decision making in the context of the assessment of large scale development projects.[42] Properly nurtured, the local governance approach provides a way out of this dilemma. It provides a means by which communities - and groups and individuals within - can organize and respond effectively to economic change.

The local government approach, to sum up, produces benefits both in the short term management of the problems of the rapidly growing community but also in the longer term development of resilience. This chapter has emphasized benefits. Yet there are preconditions for the success of the local governance approach. The subsequent chapter looks at some of the potential problems of the local governance approach and how they have been overcome in both Elkford and Tumbler Ridge.

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41. Douglas Torgerson, Industrialization and Assessment: Social Impact Assessment as a Social Phenomenon, (Toronto: York University Publications in Northern Studies, 1980) pp. 84-85.
42. Ibid., pp. 148-153.

4. Risk Sharing and Local Governance

In an article on structural changes in local government, Tindal identified four prerequistes of a local government system.[43] Listed in no particular order, these were:

i there should be a clear and complete distinction between provincial and local government responsibilities;
ii local governments should be organized so as to facilitate accountability, citizen access and effective response to citizen preferences;
iii there should be effective leadership and decision-making within local governments;
iv local governments should have appropriate boundaries and sufficient financial resources.

These are prerequisites of any local government system and are therefore relevant to this paper.

Each of Tindal's criteria suggest interesting avenues of enquiry. This chapter, however, focuses on the fourth criterion, adequate financial resources. In this regard, the local approach to community development provides a rationale for providing resource communities with the same financial means as are provided to conventional local governments. However, the resource community is notably different in some respects from more broadly based communities. It is dependent almost solely on the operations of (usually) a single, identifiable company; it is generally established expresaly on behalf of a single company; and it shares the volatility and precariousness surrounding the company. In short, it is an unusually risky site for public investment. Extraordinary measures must be taken to secure adequate financial resources in resource communities. The paramount issue is the sharing of risk.

Risk Sharing

The concept of 'shared risk' emerged strongly from the deliberations of the 1982 federal/provincial mining communities task force. The concept is also a prominent feature of the local approach to resource community governance. The un-

43. C.R. Tindal, Structural Changes in Local Government: Government for Urban Regions, (Toronto: Institute of Public Administration of Canada, 1977).

derlying notion in apportioning or sharing risk is that risk exposure ought to be commensurate with (potential) benefits received. Risk is the possibility of suffering harm or loss. It is a two-pronged concept involving quantity or value on the one hand and probability on the other. Risks can be handled in different ways. Insurance is often used to deal with situations, such as fires, which have low probability but high potential loss. Different strategies may be employed to deal with different types of risks.[44]

It is easy to see that, in a resource development venture, the resource company is a prime beneficiary and should shoulder a large, perhaps even the major, share of risk, including risk associated with investments in community facilities. This is the chief virtue of the genuine company town. By pursuing a strategy of 'company pays', it handles very cleanly the apportionment of community-based risk. Some observers, in fact, have criticized modern day attempts to move away from the company town model. Bradbury and St-Martin, for instance, suggest:

> Company policies of withdrawing from the housing market, of withdrawing from public services and of withdrawing from municipal affairs should not be hailed simply as liberal gains for the individual, or as positive aspects of the decline of company paternalism.[45]

Instead, they see departures from the company town approach as being, in this paper's terminology, a means for the company to escape bearing risk it properly ought to bear.

The observation of Bradbury and St-Martin is not necessarily wrong. An economic rationale does exist for exposing the resource company to the major share of the risk of community development, namely that the price of a re-

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44. John K. Hammes, 'Risk Definition', Presented at 2nd Economics Committee Symposium, Canadian Institute of Mining and Metallurgy, Vancouver, November 1983.
45. J. Bradbury and Isabelle St-Martin, Winding Down in a Quebec Mining Town: A Case Study of Schefferville, Mimeograph, Department of Geography, McGill University.

source ought to reflect all of the costs of producing it.[46] However, it is not only the resource company that benefits from resource development. To the extent that government has objectives it wishes to achieve in a resource community setting, objectives over and above simply facilitating company operations, it too can be identified as an appropriate bearer of risk.

In British Columbia, the provincial government has indeed pursued its own set of objectives in developing both Elkford and Tumbler Ridge. In large part, this was the reason for abandoning the company-town approach to development. Publicly sponsored community development, and especially community development led by local government, was found to be superior to privately sponsored development with respect to achieving public sector objectives. These public sector objectives, as discussed in the preceding chapter, relate mainly to resilience, social development and participation. These social and political objectives were combined with the objective of production facilitation to yield the following provincial goal statement: 'to create and sustain socially cohesive, financially viable, self-governing communities conducive to attracting and retaining a stable workforce'. In addition, a set of specific provincial resource community development objectives were prepared.[47] In light of this, the British Columbia government has accepted risk sharing, believing that it should be prepared to shoulder some portion of risk associated with investments in community facilities in return for the opportunity to fulfill its own objectives. The Province of British Columbia has accepted the concept of fair sharing of risks and has negotiated with mining companies to achieve this. The result of these discussions and negotiations is, in effect, a contract which ensures that responsibilities are shared by or fairly allocated to each party.

In order to understand how risk sharing works in practice it is useful to differentiate between various goods and services that are provided in a resource-based com-

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46. Environment and Land Use Committee Secretariat, Environmental and Social Impact Compensation/Mitigation Guidelines, (Victoria: Province of British Columbia, 1980).

47. Ministry of Municipal Affairs, Conceptual Plan: Tumbler Ridge, Northeast Sector, B.C.: Update, by R.A. Rabnett and Associates et al., (Victoria: Province of British Columbia, 1981).

munity. The discussion which follows looks at sharing responsibilities with respect to the following goods:

i merit goods, such as health, education and welfare;
ii municipal goods, i.e. local services such as road maintenance and fire protection;
iii private goods, i.e. goods and services including housing and retailing which are produced by the private sector and are intended to be consumed privately and individually.

Subsequent sections examine each of these goods in turn.

Merit Goods

In British Columbia, health, education and welfare services are, essentially, provincial services subject to some local involvement. In the health sector, hospital planning is a local responsibility and local government is required to contribute toward capital debt retirement. However, capital investments per se are effectively controlled by the provincial government as are hospital operations. Much the same prevails in education: local areas are substantially involved in operational policy and finance but always under close scrutiny. Welfare services are entirely a provincial responsibility.

These services are in a category of services which, as a matter of principle, are regarded as not suitable for sale on a pay-for-what-you-get basis. Provincial objectives for these services include standardization of service production and service distribution to all residents of the province regardless of ability-to-pay. These are objectives which stand in all parts of the province and regardless of type of community. In both Elkford and Tumbler Ridge, therefore, it was decided that health, education and welfare services would be conventionally supplied and financed. In essence, the provincial government opted to bear the investment risk associated with each service, which can be substantial. In Tumbler Ridge, a total of $11 million was budgeted for the merit goods, this being about 5 percent of the all-up cost of the community.

Municipal Goods

Municipal Operations

The local approach to community development attempts to replicate in resource communities the operations of a normal municipality. Both Elkford and Tumbler Ridge provide a wide range of normal municipal services to their residents. The municipal corporations in turn finance these services using a combination of general property taxation, provincial grants and user charges. The municipalities manage their finances under near normal levels of provincial scrutiny.

In the local governance approach, the municipal corporation assumes responsibility for operating the community. The corollary to this is that there is no company involvement in operation of the town; the resource company restricts it involvement to what it does best: mining the resource. This could result in the assumption by a community's ratepayers of both short- and long-term costs and risks of operating the community. Some observers are critical of this.[48] However, while it is important that the resource company bear a fair share of the costs and risks of operating the community, it is not necessary that the resource company operate the town to achieve this. On the contrary, it is necessary merely that the resource company itself be a local ratepayer, liable for full municipal taxation.

The call for municipal taxation of resource enterprises is justified on grounds beyond fair sharing of costs and risk. Indeed, the most substantial justification is that taxing resource companies may simply be correct tax policy. Despite arguments for exempting non-residential property from general property taxation,[49] it is of course a very common practice in Canada to tax all types of real property. Blemished as it is, the general non-residential property tax appears to be more acceptable than the alternatives, chiefly the local income or sales tax. More important is Bossons' call for a local tax system which reflects the need for externality compensation. From the local gov-

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48. J. Bradbury and Isabelle St-Martin, Winding Down in a Quebec Mining Town: A Case Study of Schefferville, mimeograph, Department of Geography, McGill University.
49. Wayne Thirsk, 'Political Sensitivity Versus Economic Sensibility: A Tale of Two Property Taxes', Tax Policy Options in the 1980s, ed. Thirsk and Walley, (Toronto: Canadian Tax Foundation, 1982).

ernment perspective, the chief externality of large scale resource enterprises is the additional urban development necessary to house and service industrial workers and their dependents. Even if general non-residential property taxation was abolished, non-residential property taxation to compensate for the urbanization effects generated by resource enterprises would be warranted.[50] Furthermore, and in a direct response to Thirsk, Smith[51] points out that the non-residential property tax is completely justified to the extent that it approximates and substitutes for user charges.

British Columbia has interesting precedents in the industrial property taxation sphere. The northeast coal mines lie within the boundaries of Tumbler Ridge and will normally contribute about two-thirds of the municipality's total annual revenue. In addition, provision has been made for externality compensation in Tumbler Ridge. The town is not required to levy tax rates above a level characteristic of similarly circumstanced communities. Should higher than normal tax rates appear to be necessary at any time, the gap between what would be 'required' and what is 'available' is to be closed with an extraordinary payment from the companies to the town.[52] Altogether these measures are designed to ensure long-term fiscal stability for the community.

In Tumbler Ridge, resource company property taxation was easily implemented: two coal mines were hosted by one community. In Elkford the situation was more complicated. Three communities, including Elkford, together hosted the workforces of five mines. Because urbanization externalities were generated by more than one mine and were spread among all of the local jurisdictions, an industrial property

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50. See John Bossons, 'Property Tax Reform: What is Desirable', Municipal Fiscal Reform in Ontario: Property Taxes and Provincial Grants, ed. Bossons, Denny and Slack, (Toronto: Ontario Economic Council, 1981); and Ministry of Municipal Affairs, Municipal Boundaries and the Taxation of Large-Scale Industrial Enterprises, (Victoria: Province of British Columbia, 1982).
51. Roger S. Smith, 'Political Sensitivity Versus Economic Sensibility: A Tale of Two Property Taxes: Comment', Tax Policy Options in the 1980s.
52. Ministry of Municipal Affairs, Municipal Boundaries and the Taxation of Large-Scale Industrial Enterprises, (Victoria: Province of British Columbia, 1982).

tax base sharing scheme was established. The assets of all existing and future mines will be pooled. Tax revenues will be shared between the three municipalities using a formula sensitive both to the cost burden imposed by the mines and to local fiscal need. Consequently, fiscal stability will be achieved at the regional as opposed to the community level. The objective is to create a resilient region. In this regard, the Elk Valley tax base sharing scheme could become a model for other resource regions.[53]

Capital Expenditures

Under the local governance approach, the municipal corporation is responsible for municipal facilities. This has two effects. The first effect is that the resource company does not have to provide community services and facilities. It is not necessarily required to put cash up-front, a considerable advantage for the company. At the same time, the municipal corporation is disadvantaged by the local approach. Municipal capital investments in community facilities such as fire halls, recreation centres and sewage treatment plants are made on the basis of information supplied primarily by the resource company: its production plan and workforce schedule. Where the company is certain of continuing full capacity production, local governments can feel secure in investing in desired community facilities. Unfortunately, such certainty rarely if ever prevails in resource extraction ventures.

Recognizing this situation, the British Columbia government has developed special measures to secure major local government capital expenditures. As most major capital expenditures are debentured over a long period, a means for eliminating the possibility of bond default was sought. One of two techniques is possible:

i the provincial government could accept ultimate responsibility for resource community debts; or
ii the resource company could in some fashion secure major capital expenditures.

Either technique would increase the resilience of the community. However, techniques involving risk shifting to the company appear to be more appropriate. This is true

53. Ibid.

because the possibility of a default would arise because of a company decision: a decision to cut or to cease production.

In view of this, various techniques for shifting capital investment risk from the local government to the resource company were analyzed.[54] A summary analysis appears as figure 3. Note that the effects of these instruments on the resource company's cash flow, balance sheet and tax liability were examined. A taxation specialist with experience in the resource sector was commissioned to advise on this aspect of the analysis.

The analysis concluded that, from both private and public perspectives, the appropriate policy would be a combination of: a) placing the company on the local tax roll; and b) selecting one of the class C instruments (see figure 3). The risk-shifting instruments in class B were considered, generally, to be less advantageous than class C instruments to the resource company. Further, class B instruments conflicted in critical respects with the province's local government approach to community development. However, it was determined that each case should be negotiated individually, since it was not possible to identify a universally preferred alternative from the perspective of both the resource companies and local government.

The analysis of risk-shifting techniques eventually found application in Tumbler Ridge. Subordinate to a comprehensive development agreement initialed by the province and the two coal companies, agreements between the town and the companies respecting interim financing and long-term debt have been developed. The general approach is that the local government plans, finances and develops the community services required to accommodate the companies' workforces. The coal companies, in turn, provide a form of guarantee with respect to debts incurred. The agreements embody the 'contingent levy' approach to risk shifting, instrument 5 in figure 3. Basically the system is this:

i Tumbler Ridge and the companies jointly agreed to a schedule of community facilities to be provided by the municipality (amounting to some $32 million);

ii Tumbler Ridge makes interim and long-term debt commitments in conventional fashion;

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54. Ministry of Municipal Affairs, Intersectoral Shifting of Risk Associated with Investments in Local Public Facilities, by MMA with Coopers and Lybrand, (Victoria: Province of British Columbia, 1981).

DESCRIPTION		IMPACT	
CLASS	INSTRUMENT	ON PUBLIC SECTOR	ON COMPANY
A. Company On Tax Roll	1. Place company on the municipal tax roll to pay full municipal tax rate	- municipal tax base expanded - corporate income tax reduced when corporate cash flow is positive - in case of total failure, debt liabilities remain	- increases operating cost - a period cost, deductible one year back or five forward - no effect on capital requirements or balance sheet
B. Company Front Ends Community Development	2. MFA debenture allotted to municipality for purchase by company	- no current financial benefit - default serious to MFA - Province would be pressured to aid in avoiding default	- increases capital requirements - affects balance sheet - possibly better for established than for new company but still unattractive in general
	3. Direct municipal borrowing from company (MFA is by passed)	- municipality pays higher interest on loan - insulates MFA but default may still worry investors and affect MFA rates - legislation required under MFA ACT	- increases capital requirements - affects balance sheet - possibly better for established than for new company but still unattractive in general
	4. Company builds some community facilities Options - public title - public lease to own - company title	- municipal costs decline unless lease to own option chosen - may create company town stigma - partial solution only: risk protection limited to company built facilities	- increases capital requirements but less than #2 or #3 - tax effect depends on option - tax status uncertain for public title and lease to own - good for corporate image
C. Company Guarantees Performance/ Based on Agreed Trigger Formula	5. Contingent levy on operating company	- no current financial benefit - legal agreement (Province/company) required; difficult to make airtight - administration complex - may bear cost of total failure	- no cash impact until annual levy is triggered - may affect feasibility analysis and go/no go decision - may affect balance sheet if levy is a priority charge
	6. Contingent levy on operating company secured by parent	- same as #5 except risk of total failure certainly shifted to company or parent	- similar to #5 - tax status of payments by parent uncertain
	7. Company deposits cash or bond with Province; interest paid to company	- similar to #6 - collection prospects perhaps superior to #4 and #5	- increases capital requirements depending on size of deposit - impact similar to #3 in other respects
	8. Company buys insurance; benefits payable to municipality	- same as #5 except collection costs increase due to intervention of third party - possibly best for Province to act as insurer	- premiums reduce cash flow - tax status uncertain since benefits payable to municipality - may be difficult to find a private insurer

Figure 3. Alternative Capital Investment Risk Shifting Instruments

CLASS	EFFECTIVENESS	REMARKS
A. Company On Tax Roll	- total failure: low since liability rests with public sector - partial failure: medium since high tax rates due to excess capacity shared by all taxpayers	- essential element of property taxation policy - effect on company not serious - limited risk shifting advantages - must be combined with Class B or C instruments
B. Company Front Ends Community Development	- total failure: high since company holds debenture - partial failure: low since there is no risk protection until a default occurs	- not recommended: no better than #1 but default has more serious consequences - not favoured by MFA - improvement possible by inserting a forgiveness clause in debenture sale agreement
	- total failure: high since company holds debenture - partial failure: low since there is no risk protection until a default occurs	- precedent: Port Hardy and Island Copper - not recommended due to low effectiveness for partial failure - improvement possible by inserting a forgiveness clause in debenture sale agreement
	- protection limited to company built facilities - lease to own: must not use a fixed price, long term contract - protection high for total and partial failure	- essential element of community compensation policy - cannot provide complete risk protection - must be combined with Class C instruments - may be favoured by companies seeking to enhance corporate image
C. Company Guarantees Performance/ Based on Agreed Trigger Formula	- total failure: problematic since collection from bankrupt company may be difficult - partial failure: high since company bears all excess costs	- uncertain risk protection for total failure - may result in least aggregate risk because of public/private risk sharing - relatively attractive to most companies esp. if deferred payment terms are used
	- total failure: high since parent exposed to liability - partial failure: high	- generally good risk protection but perhaps slightly less effective than #7 or #8
	- effective provided deposit offsets investment at risk - otherwise medium	- good risk protection for total and partial failure - requires front end capital therefore relatively unattractive to most companies
	- effective provided policy offsets investment at risk - otherwise medium	- good risk protection - may be preferred by most companies provided an insurer can be found - Province should consider being insurer

Figure 3 (Continued)

iii should the companies fail to start production, they are obligated on demand to pay the outstanding principal to Tumbler Ridge;

iv after start-up, a mine closure or production cut-back which leads to a decrease in the companies' property tax contribution triggers a special levy which is sufficient, when combined with amounts budgeted by and available to the town, to meet required annual payments.

All things considered, Tumbler Ridge would appear reasonably well equipped to endure periods of economic retrenchment.

To date, Tumbler Ridge is the only municipality in the province to have its debt secured by a resource company guarantee. A useful precedent has been established. However, the solution achieved in Tumbler Ridge may not be the answer for every situation. Nor can it be said that the Tumbler Ridge solution has been tested in practice. Nevertheless, the fact that some form of long-term debt security has been negotiated is significant.

Land Development

In both Elkford and Tumbler Ridge, local government sponsored land development took place. Not only did the local governments control land allocation but they had a central role in land servicing, the actual creation of subdivisions. This means, of course, that the resource company is not involved in land development. The company, consequently, does not have to involve itself in a business for which it has limited interest, experience and expertise. Local governments have a comparative advantage in this sphere: land development is but an extension of their normal municipal servicing responsibilities.

Local government control of land is not insignficant: it is central to the local governance approach. Control of the allocation of land is crucial for achieving a number of important social objectives. Through the control of land, local governments are able to:

i provide access for all sectors of the community to affordable land for housing;

ii encourage the development of viable and competitive commercial services;

iii facilitate industrial diversification;

iv provide sites for essential social services.

In British Columbia, the availability of crown land provides the opportunity for local governments to have control of a resource critical to achieving their community development objectives.

Subdivision servicing, of course, can be costly. Additionally, because the numbers of serviced lots required in an explosively growing resource community cannot be known with certainty, there is a high likelihood that too many or too few lots will be created. In a resource community, the risk element in land development is relatively high, in terms of both severity and probability of loss. The key observation to be made is that land developers in rapidly growing communities cannot depend on market signals to control investment since no genuine land market exists. Instead, reliance lies with labour-hiring schedules generated by resource companies. Resource companies control the information which directly leads to lot-creation decisions.

In this situation, it was deemed to be inappropriate to charge the local government with responsibility for land development in the absence of resource company assurance of the validity and accuracy of their hiring estimates. A method of securing this assurance was therefore sought. The result was the 'take-up agreement' (TUA), an instrument used both in Elkford and in Tumbler Ridge.

The TUA is an agreement between the local government and the company or companies sponsoring the resource development. It is an agreement concerning the number of serviced lots to be created. In the simple case involving one company alone, the company specifies the exact number of lots it wishes to see created by the local government. The local government then agrees to develop and market at least the specified number of lots (it might build additional lots for sale to service sector personnel). The TUA specifies that, in the event the lots are not sold during a specified time, the company is required to take up or purchase the lots at cost.

The TUA effectively transfers the risk of land development to the company. This is especially appropriate. The size of a town's initial investment is essentially determined by announced company intentions. Afterwards, the rate of return on invested capital, i.e. success or failure, is essentially determined by the company's production decisions. The TUA ensures that the risks of land development fall to the body mainly responsible for success or failure.

The Need for Financial Planning

The previous sections have outlined a three-part foundation for the longer term financial stability of the community. Taxation of resource company assets, the provision of guarantees of municipal debts and guarantees of lot take-up all provide a measure of security. It is important to emphasize that these are necessary but not in themselves sufficient steps to achieving resilience. These measures only make sense in the context of a financial plan which considers the facilities that the community will require, the services that it will need to provide and the revenues that it will receive, all in the context of an uncertain, volatile economic environment.[55] Parenthetically, it may be added that the quality of financial management is of interest, not only to the public sector, but to the private sector as well. If finances are managed prudently through effective financial planning, the concerned resource company can be assured that its significant tax contributions are being used wisely.

In the case of Tumbler Ridge the development of the community was preceded by preparation of a financial plan.[56] The financial plan in turn became the basis for discussions and negotiations with the two companies regarding the services to be provided, taxation of mine assets, protection against potential revenue shortfalls, guarantees of municipal debts and land development requirements. Ultimately the financial plan became the basis for the town's capital budget and the schedule of facilities subject to debt guarantees. The use of a computerized municipal budget simulator enabled the testing of various policies and the continuous updating of the financial analysis in light of changing workforce figures, facility requirements and capital costs.

Financial planning is not a 'one-shot' effort; it must take place on a continuous basis. While being a prudent practice in all municipalities, it takes on added significance in the resource community. Current budget and capital expenditure decisions made without the consideration of long-term implications could seriously impair long-term resilience. In one community, for example, a new recreation

55. Ministry of Municipal Affairs, forthcoming.
56. Ministry of Municipal Affairs, Conceptual Plan: Tumbler Ridge, Northeast Sector, B.C.: Update, by R.A. Rabnett and Associates et al., (Victoria: Province of British Columbia, 1981).

centre was developed and was financed with a 20-year debenture. Unfortunately, the mine supporting the town had a life expectancy of approximately 13 years, and the town now risks defaulting on its debentures. Elkford, in contrast, has a rolling financial plan. Each prospective capital expenditure is tested as to its longer-term implications. Current budgets and capital expenditures programs can be adjusted to accommodate future conditions.

Private Goods: Housing

This section looks at fair sharing of risks with respect to the provision of private goods which are, with a few exceptions, produced and consumed exclusively in the private sector. The three major categories of private goods are housing, commercial services, and industry. These three sectors comprise a significant proportion of the investment in a resource community. At Tumbler Ridge, for example, total capital expenditures are expected to be $232 million in 1981 dollars. The total for the three private good sectors in Tumbler Ridge has been estimated at $154 million or 67 percent of total costs. Housing alone is expected to cost $132 million or 57 percent of total capital costs.

Although there are three categories of private goods, this paper focuses on housing. Housing represents the largest single investment in a resource community and it presents the most vexing risk protection problems. Problems in the commercial business sector are different. When making an investment decision, the operator of a business can take into consideration not only his direct operating costs but also the risks of doing business. The operator's risk premium, so to speak, can be incorporated in the prices charged for goods and services. Consequently, as the task force on mining communities has argued, the private businessperson 'should be assuming some portion, perhaps a major portion, of the costs in the event of a closure'.[57] The focus of this section, therefore, is on the housing issue.

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57. Task Force on Mining Communities, Report of the Task Force on Mining Communities, (Ottawa: Federal/Provincial Task Force on Mining Communities, 1982), pp. 51-53.

Integrated Housing Market

The local approach to resource community development has, as a corollary, a particular approach to the provision of housing. A distinctive pattern of provision of responsibilities and of short- and long-term risk sharing results. This presents both opportunities and constraints with respect to the long-term resilience of the locally-governed community.

A primary objective in both Elkford and Tumbler Ridge has been the creation of an 'integrated' or normally functioning housing market. An integrated housing market provides for:

i relatively free trading of housing stock;
ii access by all sectors of the community to affordable housing.[58]

The integrated market can be contrasted to the segmented market where one or two actors, usually the resource companies, control and allocate the housing stock. Several serious consequences stem from the segmented market. The entry of the service sector may be restricted. In turn, the lack of a well developed service sector may cause community instability and high labour turnover.[59] Additionally, market segmentation may decrease the resilience of the community, since an adequate supply of affordable housing is a precondition for economic diversification.

The presence of an integrated housing market has significant implications for the development of local governance. An integrated housing market characterized by a high degree of home ownership can reinforce local democracy and facilitate responsible decision making. In particular, home ownership can offset real or perceived resource company domination of community political life. It provides strength and independence for local institutions. Conversely, company ownership of housing stock can create

58. Ministry of Municipal Affairs, Problems and Responses: Resource Community Development, by R.A. Rabnett, G. Paget and B. Walisser, (Victoria: Province of British Columbia, 1978).
59. Veit and Associates, Labour Turnover and Community Stability: Implications for Northeast Coal Development, Prepared for the Federal/Provincial Manpower Sub-Committee on North East Coal, (Victoria: Queen's Printer, 1978).

serious, although not necessarily terminal, limitations for the development of local governance. The integrated market consequently has been central to the local governance approach and has been actively pursued in both Elkford and Tumbler Ridge.

Equity Bondage

The integrated or private market approach to housing provision has, however, been heavily criticized as representing a shifting of current costs and long-term risks from the resource company to the worker who owns a home.[60] Proponents of this point of view argue that the resource company, as the prime beneficiary of the resource development, ought to bear the major share of the costs of housing and ought to shoulder the major portion of risk. They point out that the companies have implicitly accepted this responsibility with their acceptance of the buy-back provision as a standard item in their housing programs. The perceived ineffectiveness of the buy-back as a means of releasing workers from what might be termed 'equity bondage' leads them to question the desirability of worker-owned housing at all. Bradbury and St-Martin suggest that renting or leasing from the company would be a more appropriate solution.

Other techniques for releasing workers from equity bondage have been suggested. The mining communities task force has suggested the creation of sinking funds for vulnerable mining communities. These sinking funds would reimburse or indemnify those who lose equity as a result of a closure. Contributions to the fund would come from the company, the worker and the provincial government. For new development situations, the task force suggested that a housing buy-back fund be established by the company, possibly with contributions from employees, residents and government. A final suggestion of the task force was purchase of equity insurance on a commercial basis.

One suggestion not made by the task force is involving Canada Mortgage and Housing Corporation in equity insurance. Federal involvement in this problem is justified in terms of the constitutional objective of mobility, its interest in economic development, and its interest in good housing.

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60. J. Bradbury and Isabelle St-Martin, Winding Down in a Quebec Mining Town: A Case Study of Schefferville, Mimeograph, Department of Geography, McGill University, 1982.

Moreover, CMHC already has recognized the unique nature of the resource community in its requirement that resource companies guarantee NHA insured mortgages.

At the root of all of the above suggestions is the concept of shared risk. Clearly these methods of protecting homeowners need further consideration. The critical issue, of course, is how much of the risk ought to be borne by each of local government, the resource company, and senior governments. Solutions are not likely to come easily.

An Alternative Approach

Equity bondage is a troublesome issue. Some of the measures for countering the negative effects of equity bondage may not succeed or may not be feasible. Certainly, it can hardly be said that the problem is solved as of the present.

Regardless, the problem must be placed into perspective. Equity bondage exists in all communities, resource towns and metropolitan centres alike. The point is not to eliminate private home ownership but to ensure that the vulnerability of residents of resource communities stemming from equity bondage is not substantially different from the vulnerability of others living elsewhere.

Further, the additional vulnerability of resource community residents must be measured against the benefits of the integrated housing market, especially its compatibility with local governance. The pursuit of the local approach to community governance implies that problems in the housing sector may be created. Yet it would be inappropriate to sacrifice the overwhelming long-term benefits of local governance simply to avoid relatively less important problems in the housing sector. The word relative is stressed: further examination of general solutions to housing problems certainly should be encouraged. But the problems in the housing sector might better be resolved outside the narrow confines of the housing issue itself. The most appropriate focus, from our viewpoint, is the development of resilient, locally governed communities.

The first step in creating resilient communities is making resilient decisions, particularly with respect to choice of settlement options. Settlement choices which consider, comprehensively, the factors of distance, regional settlement structure, nature of the resource, and prospects for economic diversification would potentially lead to more resilient communities. Creation of resilient communities resolves the equity bondage problem by substantially remov-

ing the conditions which give rise to its ill effects. Resilient communities are able to moderate the effects of severe economic fluctuations. They can do so because they have a suitable financial framework, a functioning housing market and a broad economic base. All of these things imply greater protection or security for workers' investment in housing.

The second step in creating resilience is facilitating the development of strong, capable, local self-government. Strong local government can effectively respond to the challenge of radical economic change and not be the passive victim of externally generated decisions. The success of the northwest Ontario community of Atikokan in responding to imminent decline resulting from closure of two iron mines is a case in point.[61] The people of Atikokan, as represented by their local government, have taken the initiative to replace the community's economic base and take effective control of their community's future. The protection of worker equity in housing is but one benefit of a more comprehensive focus on the survival of the community.

61. InterGroup Consulting, Economic Diversification in Mining Communities, TFMC Working Paper 2, (Ottawa: Federal/Provincial Task Force on Mining Communities, 1982).

5. Conclusion

The current mining recession has served to reinforce a hard lesson from the past: uncertainty, unpredictability and volatility continue to be among the dominant features of the resource economy. However, the economic and human hardships caused by the inevitable fluctuations of the resource economy can be moderated if there is a deliberate focus on 'resilience': making resilient decisions and creating resilient communities. A resilient decision provides viable options even if events do not turn out as expected. A resilient community is able to withstand the periodic or sporadic economic misfortune that besets all resource communities at some point in time.

This paper has focused on the opportunities for resilient decision making which arise during the gearing-up phase of resource town development. The objective has been to focus on prevention, i.e., planning ahead to avoid the serious problems of decline. Prevention is an alternative to a strategy of amelioration, i.e., resolving problems as they occur. While amelioration is important, prevention offers the greater freedom to design solutions. The prospects for decline can be considered in current decisions regarding settlement options, approaches to community governance, and implementation of the local governance approach. The solutions which of necessity have been designed to resolve the problems of the growing community have applicability to stable and or declining communities.

This paper affirms the validity of local governance. It demonstrates the manifold possibilities inherent in a local governance approach to design and implement creative solutions for effective management of uncertainty, unpredictability and volatility.

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CANADIAN RESOURCE COMMUNITIES: THE RESIDENTS' PERSPECTIVE IN THE 1980s

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Introduction

It has been almost 20 years since comprehensive and in-depth research has been undertaken on Canadian resource towns. Yet, many of the findings of these dated studies are still in current use and often form the basis for policy decisions for resource towns being planned today. Resource towns have undergone many significant changes during the last 20 years, and what may have been fact then has, unfortunately, formed the basis for the myths of today.

In February 1982, Praxis, A Social Planning Company,[1] was commissioned by Canstar Oil Sands Limited (Canstar) to undertake the Resource Community Study (RCS).[2] The study was to assist Canstar in developing its housing policy and other corporate community policies and practices. Ultimately, Canstar wanted to learn what would be critical for the attraction and retention of workers.

In order to achieve the study goals, Praxis sought to establish an up-to-date data base from which subsequent policy formulation could occur.

Canstar in discussion with the consultants selected five western Canadian resource communities to be studied. These include Fort McMurray, Alberta; Leaf Rapids, Manitoba; and Sparwood, Elkford and Kitimat in British Columbia (see table 1).

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1. The study team consisted of Richard Roberts (project director), Mary Ann Murphy, Peter Seto, Rob McManus, all from Praxis; Dr. George Kupfer, Fresh Start Consultants and Dr. Ira Robinson as advisor to the team. David Stuart and Paddy Trelearne represented Canstar on the study team.
2. Canstar Oil Sands Ltd., is a joint venture between Nova, An Alberta Corporation and Petro-Canada. The joint venture was established about two years ago in order to plan and construct an oil sands plant in the Athabasca oil sands region in northeastern Alberta.

Table 1

CHARACTERISTICS OF THE STUDY COMMUNITIES

Community	Population (1982)	Resource Base	Age of Community (years)	State of the Local Economy
Fort McMurray	31,000	Oil Sands	20	Recent decision to cancel Alsands plant is causing economic downturn
Leaf Rapids	2,500	Copper Zinc	10	One-third of work-force laid off during study with one month shut down planned during summer due to lack of markets.
Kitimat	14,900	Aluminum Forestry Methanol	27	Alcan expansion underway, Eurocan expansion underway. Ocelot methanol plant nearing completion with proposed expansion to petrochemical project.
Sparwood	5,600	Coal	20	B.C. Coal expanding with opening of Greenhills mine scheduled for 1983.
Elkford	3,500	Coal	10	Fording and Crows Nest Resources expanding. Some of Greenhills workers will also reside in Elkford.

In an attempt to obtain an in-depth understanding of the trends, patterns and changes which have occurred in resource towns during these two decades, a unique grass-roots approach was undertaken. The extent of involvement of government, industry and community residents in this

study has seldom been achieved over such a range of communities. The involvement of the client group throughout the study was also unique in terms of its commitment to an open information policy. While the end product is paramount, the process utilized here allowed all those initially involved in the process to see the outcome and understand how their contribution was used. The rewards achieved through feeding back the data to those residents who initially provided it cannot be underestimated. The result was a wealth of data that will be useful for years to come.

Study Process

To achieve the information previously outlined, an innovative four-phase research approach was developed.

1. Stage One, Preplanning and Community Orientation, included meetings with government, industry and community leaders. Over 75 interviews were completed.
2. Stage Two, Community Data Collection, involved hiring of 24 local interviewers who completed 632 two-hour household interviews.
3. Stage Three, Community Feedback, included a series of workshops in each community where the survey results were presented. In addition, housing and cultural/recreational trade-off games were played with all participants.
4. Stage Four, Analysis and Documentation.

Quality of Life in Communities

In all five communities the ratings were extremely high for most of the quality of life indicators. The only exceptions were education, shopping and retirement. Of the five communities, Kitimat residents rated their community by far the best. Residents rated the community highly on all indicators, even education, shopping and retirement. While the latter two were low, they were still higher than any other community.

Sparwood, and then Elkford, were the next most highly rated, followed by Leaf Rapids and Fort McMurray. Fort McMurray was not rated as highly as the other communities, but it must be remembered that all community ratings were higher than anticipated. The low rating for Fort McMurray resulted from the residents' feeling that it was a

poor place to raise children, and that the variety, type and access to out-of-doors recreational opportunities was limited. Fort McMurray rated highly on workplace indicators but less positively on social/community indicators.

In all cases, residents saw their communities as becoming even better places to live. They saw their communities maturing rapidly over the next five years. The major request was for improved commercial and recreational services.

Some major changes have occurred in resource communities during the past decade, more particularly in the last few years. The fact is, people are staying in the communities. While employment and economic opportunities attracted the majority of residents to the community, major reasons that they are staying relate to the quality of life available in a smaller town.

People have established roots, even in the current rapid growth situations. The response in Kitimat was '... the leave-town syndrome is over. People are returning first to the town, then looking for jobs'. It can be seen that the communities are stabilizing. The older communities such as Sparwood and Kitimat have certainly seen this change; the unique situation seems to be that the new, growth communities are also stabilizing more quickly than has previously been the situation. This can be observed in Elkford and Fort McMurray. A variety of suppositions can be made. Municipal and provincial government intervention, the early establishment of local autonomous government, greater participation in community activities, and the growing awareness that small town lifestyles can be preferable to those of the big city; these all have resulted in increasing stability in the communities.

The study supports the premise that it is inappropriate to use provincial standards when identifying the needs of a resource community. Activities and services differ from a large, urban community and for that matter, even smaller non-resource communities. Quality of life is measured by small town atmosphere, family ties, availability and access to services and, in particular, recreational activities and facilities. Access to community and recreational services is seen as one of the coping mechanisms which make a resource community into a place that can be called home.

Resident Characteristics

The population and employment characteristics across all five communities are very homogeneous. This leads one to surmise that, by using this study population to make projections related to housing or transportation, the likelihood is excellent that the projection will be accurate. One must always be aware of such factors as the age of the community and when the peak growth periods occur when making such projections, however.

Generally, a significant group has remained in each of the communities from initial start-up or following each of the major growth periods. The median length of residency was 7.3 years, ranging from 5.3 (Elkford) to 13.1 (Kitimat) years.

Between 60 percent and 90 percent of residents came from job/communities within the same province as the particular community. A total of 83 percent of the residents from all five communities came from locations within western Canada. The residents generally came from relatively small communities, usually of less than 10,000 population. Very few came from large, urban centres.

The average family contains 3.6 people. The families are younger than the Canadian average, with a generally higher level of education than has been seen previously, and have an average household income of approximately $35,000, high compared to the Canadian norm.

Approximately 60 percent of the jobs were in the basic industry with the remaining 40 percent devoted to service sector employment. Job tenure was longer than expected and turnover lower than expected. This was partially due to the maturing of the communities as well as a concentrated effort to reduce turnover which recently has been initiated by some of the companies in these towns.

Community Services

It became obvious that community services play a vital role in the real and perceived well-being of the residents. Respondents were very careful and selective when discussing community services. Residents gave extensive thought to the issue of needs and priorities for community services both in their own community as well as the requirements in a new town.

Time, and the stage of community development are key factors in the need for services. As the community matures, the need for service changes. For the initial de-

velopment of a town, there was consistent agreement that the development of high quality health and education services was essential. The high priorities and ratings for these services bears out this statement. A second level of priority included commercial, public, recreation and justice services. A tertiary level of service priority indicates the need for entertainment, human resources and other services.

The residents emphasized that a broad range of community services are essential to a town's success. What is equally critical is the timing and quality of the services. As seen from the responses and priorities in Elkford, the town currently in a growth situation, planning in advance of need is essential. Education and health programs and facilities should not lag behind need. Frustration sets in, and people worry about the health and education of their children.

Residents responded almost unanimously regarding the lack of commercial services. There is a failure to meet the consumers' needs for lower prices, sales, selection and variety. Travel became one of the most common methods to meet the needs, however, this further impedes the development of an adequate commercial centre in a town.

When reviewing major resident variables, some valuable insights become apparent. When residents first arrive in a new town, their concerns relate closely to the needs for housing and caring for the health and education needs of their family. As time passes, residents begin to look outward; they look to their neighbourhood and to the community. Community activities and services begin to take on much more meaning.

A very important indicator is that of marital status. Respondents who were married rated health and education as critical over all else. Singles, on the other hand, rated health as important (not education) followed by entertainment, and commercial and public services. Single status individuals rated housing somewhat higher than married respondents. This is probably due to the dispersed emphasis of those with families towards housing, health and education, all of which are important.

Finally, age is a key indicator. Younger residents place greater emphasis on recreation and on public and commercial services than residents in their thirties; they place less on health and education. During the thirties, primarily due to the fact that these are the child rearing years, heavy priority is given to health, education and housing. The focus becomes the family, and almost all other services are considered absolutely low priority in comparison. Older

age groups place greater emphasis on health care and commercial services in the community. Entertainment and recreation priorities begin to increase as well.

While some of these indicators seem very practical and commonsense, the employment and recruitment programs established by the company and/or government should consider the implications of differing demographic characteristics on the types of housing, housing programs and need for various community services. Without an emphasis on health care, education and commercial services, personal and family problems could develop. In turn, this may increase resident dissatisfaction and result in decisions to leave the community.

Existing Housing

Most residents reinforced the commonly held belief that accommodation was difficult to obtain in resource communities. Three basic reasons were provided: lack of availability, lack of appropriateness for their lifestyle or stage of life; and affordability. Housing for the service sector presented even greater problems of availability and affordability.

Housing was seen as most critical for residents first moving into the community and for young couples with children. Housing was important in retaining residents, but not as important as expected. The longer one remained in the community, the less important housing became and the more important became location, friends and community services. Other factors such as good community services were also essential, along with outdoor recreation, friendship and family ties, and the small town atmosphere. All respondents were adamant that company housing not be 'ghettoized'; rather, it should be mixed and dispersed throughout the community.

Single family housing predominated in the communities, ranging from 50 percent to 70 percent, depending on the community. A definite housing ladder was noted when tracing housing type and tenure patterns. The progression seems to be much faster than expected, with most residents moving from multiple-family rental accommodation to single-family home ownership within one or two moves. Half of the respondents had been in their current residence for three years or less; a further one-third had been in their homes for more than six years. A pattern developed when comparing length of residency with the major boom periods in each community. Many people moved into a home during

the boom and have never left that home. Primarily, they were young and of child-bearing age. They raised their young in that home, probably had some form of housing subsidy, and have remained in the home even after their children left home.

Housing size was not excessive, averaging approximately 1200 square feet. However, averages are deceiving. Over one-third lived in houses in excess of 1200 square feet while a similar proportion lived in housing of less than 1000 square feet. Most residents indicated that they chose their housing because it was affordable, or that it was all that was available. Extensive comments were made on the lack of housing choice, and on the fact that housing types were inappropriate to resident lifestyles.

Over half of the residents have completed extensive upgrading of their homes. Among those who had not completed renovations there was a strong desire to do so, but they were constrained because regulations did not allow renovations, or because the costs were too high. Renovations were undertaken for three major reasons: to add space to the home; to upgrade the home, including finishing the basement or garage; and to conserve energy.

New housing costs ranged from $65,000 to $135,000 across the five communities, averaging $90,000 to $100,000. Monthly housing costs varied from $350 per month in Kitimat to $750 per month in Fort McMurray, with a median housing cost of $525 per month.

Average interest rates ranged from 11 percent in Kitmat and Sparwood to 16 percent in Elkford. Over the next two years, many mortgages must be renegotiated. Many residents indicated extreme concern about their ability to renew their mortgages if interest rates did not decrease substantially.[3] While many felt they would have to save, or could cope in other ways, some indicated that they would have to sell their homes, or obtain better arrangements through their employer. With the poor financial condition of several of the resource companies, this could present some very serious problems for both the employees and the companies. This says nothing about the service sector employees, whose problems may be even more severe. There is a distinct possibility that many resource communities may lose a substantial portion of their service sector in the next few years, unless the situation changes dramatically or some form of additional assistance can be provided.

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3. Data collection occurred during 1982, just prior to the decline in interest rates.

This leads into a discussion of subsidies in these communities. Approximately 40 percent of the households noted that they received one or more subsidies. This varied from a high of 68 percent in Leaf Rapids to only 17 percent of the households in Kitimat. The majority of subsidies are in the form of interest-free loans, assistance on the first and second mortgages, or utility subsidies. People who have resided in their homes for a long period are often no longer eligible for ownership subsidies. This is the situation in many cases in Kitmat and Sparwood, for example.

Rental accommodation ranges from a median of $277 per month to Sparwood to $540 in Fort McMurray, averaging $417 per month across all communities. In those communities with some form of rental subsidy, such as in Leaf Rapids, many residents are not even aware that these built-in subsidies exist.

Housing Preferences

Almost total unanimity existed regarding the preference for single family housing; over ninety percent of residents wanted single family homes. Privacy, the ability of the residence to best meet their needs, and spaciousness were given as major reasons for this choice. Almost all of the younger people of child-bearing age desired single family homes in which they could raise their families. Only the younger or newer arrivals and older or longer term residents indicated slightly less need or desire for single family homes.

Single people and those who were divorced, widowed or separated also indicated a slightly lower perference for single family homes; a slightly greater proportion preferred attached and mobile home options. Service sector employees also noted slightly greater preference for attached and mobile homes, which may be the result of a real or perceived inability to pay for single family housing.

Location of residence within the community was considered important to many of the residents. Almost one-third indicated a desire to live in a rural subdivision option if available. Again, privacy was given as the greatest reason. Those choosing to live in town desired this option so that they could be close to various community services.

People were very conservative in their expressed requirements for future homes, and seemed to build in their own constraints. Whether this was conditioned by economic reality, interests rates, or other reasons is unknown.

Newly arrived residents and the younger residents wanted larger homes, probably because they had families, or were preparing to raise families, and hence increased size was seen as important. The older and more long-term residents were satisfied with smaller homes. Their children had left or were leaving home, so there was less need for space. While company employees indicated that average housing size was adequate, the service sector was split, some wanting very small homes, others wanting large homes. The reason for this split was unclear.

Residents wanted to pay only slightly more for future housing than they are paying in their existing homes. This is not unexpected, as they wanted a similar increase in unit size; both were relatively small increases, considering this may be the home in which they would spend much of their life.

Fort McMurray and Leaf Rapids residents both wanted substantial reductions in housing costs. As Fort McMurray residents spent the greatest amount of money on housing this could be seen as justifiable, although probably not realistic. Kitimat, Sparwood and Elkford residents all expected that housing prices would increase substantially, showing a more realistic view of the housing market.

Leaf Rapids deserves special attention, as it is the most subsidized of all the communities. While paying the lowest housing costs, its residents still wanted larger homes in the future but also wanted to pay substantially less than their present payments. It seems that the sheltering effect of the subsidies may have had a reverse, negative, effect, leading residents to develop unrealistic demands for housing (and maybe other needs and services) related to what they are willing to pay. It may be that a point exists beyond which subsidization begins to have a negative effect. People become too isolated from the 'real world' and demand more than the system can provide. This certainly will create problems for the residents, the employer, and all levels of government which provide various subsidization programs.

To reinforce this point, in Sparwood, housing subsidies were increased substantially. Residents in the community workshops indicated that housing costs rose comparably within a very short time, negating the effect of the increased interest free loan. It seems that little could be done to avoid this situation, except perhaps by 'banking' housing and land in order to buffer this effect.

Most respondents indicated that they would be able to provide a substantial down payment for their new home. In many cases, this depended on the sale of their existing

home. In the more settled communities, the residents had a greater ability to provide large down payments; in all likelihood this was due to the longer residency and therefore greater equity of residents who owned their own homes. The puzzle was Elkford; even though it is a new 'growth' community, many of the residents indicated they could already provide substantial down payments. It is not understood where these residents would obtain this money. This finding does not fit the image of the new resident who may arrive with little, if any, money, and may possibly be in debt in his former community. Further work needs to be completed to understand the significance of this situation and the implications on policy formulation.

Almost everyone wanted to reduce housing costs. One way in which residents felt they could reduce housing costs in these communities was through the concept of 'sweat equity'. Contributions ranged from building the homes themselves, completing framing and carpentry work, to completing the interior and exterior of the homes; the latter two were by far the most popular suggestions.

A broad range of priorities became apparent when residents were asked about community, neighbourhood and housing needs. A housing trade-off game was developed and used in all the community workshops in an attempt to identify residents' real needs and what they were willing to give up in order to obtain these desired amenities. Participants scored their existing housing attributes, then established what they would like in their next home with no constraints applied. Finally, they were required to reduce their overall requirements to approximately 10 percent below their current housing costs. Surprisingly, with their unconstrained choice, participants increased their housing costs by only 20 percent over existing housing costs, a relatively conservative increase. The most important factors emerge when comparing existing homes with the financially constrained choice. Overall, participants had to reduce their housing attributes to a level below that in which they currently live. However, residents would not reduce the size of home, their size of lot, nor their desire for privacy. Also, they substantially increased the amount of money they would pay for higher levels of energy efficiency in their homes, as well as for a more uniquely designed home.

As participants were being forced to consider how to spend less than in their existing housing, they had to reduce some attributes substantially in order to retain others. For example, they were prepared to substantially decrease the level of lot servicing by giving up under-

ground services, street lighting, and curbs and gutters. They were also prepared to reduce the level of dwelling completion stating that they could complete the painting and finishing, the basement and garage, and the landscaping themselves. Also, they saw less need to be close to most community services.

Finally, after completing a regression analysis of the data, it was clear that attributes which increased residents' level of satisfaction were privacy, the size of housing unit, access to schools and parks, and view. However, it must be noted that other factors not included in the trade-off game such as housing price, interest rates and other factors could affect satisfaction to a much greater degree.

Transportation

Transportation and the private vehicle play a very pivotal role in resource communities. Vehicle ownership is high, with some communities averaging two vehicles per family, excluding recreational vehicles. Almost all adults, including both men and women, have drivers' licenses.

Residents spend extensive periods of time in their vehicles, for work and business, entertainment, shopping, and vacation. People use their vehicles for work much more than the researchers expected. Even in communities such as Elkford and Fort McMurray where company transportation is provided, half to two-thirds of the respondents drive their own vehicle to work. This figure would be even higher if those using carpools are included. Nonbusiness travel patterns indicate that people use their automobiles for many reasons especially for shopping, entertainment, and to obtain medical services. Many trips are multiple purpose, accomplishing many activities with a single trip.

Residents of communities close to other centres drive twice as much as those in more isolated locations. There is also higher reported car ownership in those communities where people can make greater use of their vehicles. Sparwood and Elkford have twice as many major trips per year as the average and four times as many as residents of Fort McMurray or Leaf Rapids.

Residents do not travel to Hawaii, Las Vegas or the Bahamas for vacation. Rather, they go to the closest major centre, complete their essential tasks and then go to small towns across Canada. This occurs because many residents come from or have family and friends in these small communities.

In conclusion, people in resource towns travel, and travel extensively, whether as a means to escape, to obtain needed goods and services, or to see family and friends. Travel is a way of life in these communities.

Residents Recommendations for Community Planning

Resident's responses were prolific on a wide range of issues. Residents felt that the main features which would retain people in the communities included: employment; good medical, dental and other health services; education; housing, particularly affordable, quality housing; and comprehensive benefit packages.

There was a general feeling that, if an employer was a good corporate citizen, people would be more willing to support the company. For the first time in any resident survey, a large proportion of the employees stated that there was nothing which would make them leave their employer. Sparwood residents employed by B.C. Coal (now called Westcan) showed the most positive response. Some of the accomplishments and employee-relations initiatives of B.C. Coal include positive community relations, awards for length of service, and community banquets and parties sponsored by the company, to name but a few. These were greatly appreciated by the residents.

Residents provided a wide range of responses to planners of a new town. Responses fell into several major categories:

i anticipatory rather than reactive planning;
ii appropriate, affordable housing designed for the local winter and snow conditions;
iii resident involvement in the planning process at the community and housing levels;
iv planners and consultants who have spent time in the community and in the region so they are aware of the problems;
v no high density housing;
vi draw on experience of other communities/situations/residents to plan a new community;
vii have health, education and commercial services available in the community before residents arrive.

Summary of Recommendations

The policy recommendations are extensive, complex and highly interrelated. Of particular concern is the fact that, while many recommendations may become the responsibility of the company, many are also the direct or joint responsibility of the various levels of government and the community. A matrix which summaries the recommendations and responsibilities is outlined in table 2.

Conclusion

The development of a new town will be a complex task requiring extensive cooperation between all levels of government, the community and the company. It is essential that all responsibilities are identified and assigned to the various participants well in advance of the actual development and construction of the town. The failure to clearly establish responsibilities and channels of communication ahead of time can lead to confusion, uncertainty, stress and increased costs for all participants.

A master development agreement coupled with a community development agreement is one of the best methods to identify and develop the requirements including establishment of the time schedule, the costs and the responsibilities of all the participants in the process. Many of the recommendations require cooperation between various levels of government and the company. Based on this and other input and direction obtained from other sources and within the company, the corporate position can be developed in each of the policy areas. The government, of course, will have their own position(s). A negotiating process will have to be completed. If both sides have their positions well established, it will provide a good basis for completion of successful negotiations. It is hoped that in this manner, a cooperative, negotiated master development agreement and a community development agreement will lead to the creation of a viable, healthy and cohesive community at the earliest point in time. This study indicates that development of the five resource communities contains many examples of how new resource communities can be successfully built in the future. There is enough knowledge and resources to do an excellent job given a reasonable time frame and resources.

The recommendations were approved in principle by Canstar's Management Committee. To facilitate implementation, a series of 'action matrices' were developed. These presented the recommendations, a description of the stage

Table 2 Summary of Recommendations

1	LEGEND Primary ● Secondary ○	RESPONSIBILITY				
		IMPLEMENTATION	ADVOCACY	COOPERATIVE DEVELOPMENT		
OBJECTIVE	POLICY RECOMMENDATION	CORPORATION	GOVERNMENT	CORPORATION/ FEDERAL PROVINCIAL GOVERNMENT	CORPORATION/ MUNICIPAL GOVERNMENT	CORPORATION/ COMMUNITY
Housing Types, Tenure and Preferences (9.6.2)	Guarantee for housing sales.	●				
	Don't get into housing market. Use developer proposal calls.	●				
	Provide housing information to new recruits.	●				
	Develop transitional housing program for incoming employees.	●				
	Develop transitional housing program for native people.	●		○		
	Develop housing options and housing packages appropriate to incoming residents.	●				
	Develop housing expansion packages.	●				
	Develop housing supplies store.				○	●
	Expand housing package "options" program to all housing in community.		●	○	○	
	Develop program to include service sector.			●	○	
	Develop range of developer housing proposal calls.	●				
	Design housing, neighbourhood and community sensitive to northern conditions.	●		○		
	Develop rural subdivisions.			○	●	
	Review housing/servicing standards appropriate to housing needs of residents.	●				
	Develop non-segmented housing market and disperse company housing throughout town.	●		○	○	
	Build housing subsidy into the land.	○		○	●	
	Remain competitive with other resource company housing subsidies.	●				
	Develop housing/information office for incoming residents.	●			○	
	Develop some housing appropriate to needs of special groups.	●		○		
	Transient Housing					
	Develop camping and trailer compground for transients, to be upgraded in future as part of recreation system.	○			●	
	Develop hostel for company employees.	●				
	Develop hostel for other single status employees.			○	●	
	Mobile Homes					
	Develop executive, permanent mobile home parks.	○			●	
	Design unique, double wide, permanent trailer units.	●				
	Provide adequate storage and parking.	●				
	Develop parkland with large, private, well landscaped lots.	●				
	Engage management company to operate.	●				

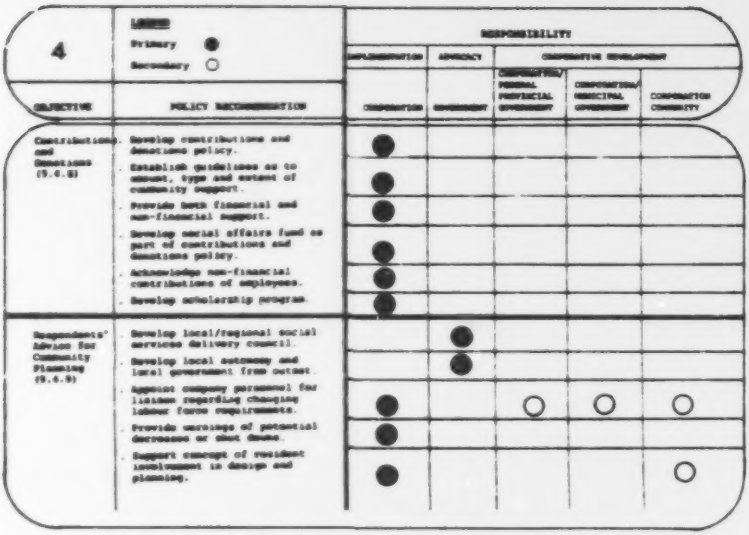
Table 2 (continued)

2	LEGEND Primary ● Secondary ○	RESPONSIBILITY				
		IMPLEMENTATION	ADVOCACY	COOPERATIVE DEVELOPMENT		
OBJECTIVE	POLICY RECOMMENDATION	CORPORATION	GOVERNMENT	CORPORATION/ FEDERAL PROVINCIAL GOVERNMENT	CORPORATION/ MUNICIPAL GOVERNMENT	CORPORATION COMMUNITY
	Attached Housing					
	. Provide good range of attached housing types.	●				
	. Watch residential mix.	●			○	
	. Provide adequate parking, outdoor private spaces, good landscaping.	●				
	. Provide additional indoor/ outdoor storage.	●				
	. Engage management company to operate.	●				
Community Services (9.4.3)	. Development Agreement contain specific commitments of government service delivery.		●			
	. Basic services include high quality health, education and justice services.		●			
	. Develop information office and hire community development worker to assist residents.			●		
	. Assist with interim financing of community services if required	●		○		
	. Develop more family oriented recreation and cultural programs.		●			
	. Support community development.	●				
	. Support development of community daycare services.		●			
	. Support adult education and community education programs.		●			
	. Develop school education program to increase awareness of company and employment opportunities.	●		○		
	. Develop coordinated health, social services programs especially related to emergency services			●	●	●
	. Develop and implement comprehensive recreation master plan.		●	○	○	○
Commercial Services (9.4.4)	. Support development of viable/ competitive commercial services.				●	●
	. Preference to purchase of Canadian goods.	●				
	. Preference to western Canadian goods.	●				
	. Attempt local purchase wherever possible. This should apply to contractors as well.	●				
	. Assign business development person to assist local enterprise.	●				●
	. Provide quota guarantees for purchase of local goods and services.	●				●
	. Develop cooperative, year-round community greenhouse.			●	○	○

Table 2 (continued)

3	LEGEND Primary ● Secondary ○	RESPONSIBILITY				
		IMPLEMENTATION	ADVOCACY	CONSULTATIVE DEVELOPMENT		
OBJECTIVE	POLICY RECOMMENDATION	CORPORATION	GOVERNMENT	GOVERNMENT (FEDERAL, PROVINCIAL, GOVERNMENT)	GOVERNMENT (REGIONAL, MUNICIPAL, GOVERNMENT)	CORPORATION (COMMUNITY)
Employee Profiles (9.4.5)	. Develop labour force profiles.	●				
	. Base recruitment on labour force profiles.	●				
Labour Force Planning (9.4.6)	. Recruit in rural and resource communities.	●				
	. Use informal resident network.	●				
	. Recruit extended families	●				
	. Develop skills inventory.	●				
	. Identify positive aspects of north.	●		○		
	. Screen employees. - community visitation - develop information package - information officer - community development worker - orientation programs	●				
	. Review alternatives to training.	●		○		
	. Monitor employment supply and demand.	●				
	. Discuss labour force needs with federal, provincial and various organizations.	●	○	○	○	
	. Support local/regional hire.	●		○		○
	. Require contractors/subcontractor to meet same local/regional hire.	●				○
	. Develop trade apprenticeship program.	●		○		
	. Review other manpower training programs.	●				
Employment, Training and Advancement of Target Groups (9.4.7)	. Develop comprehensive program to recruit, hire and train the target groups.	●		○		○
	. Develop program to advance competent target groups in the company.	●		○		
	. Advance target groups in the non-traditional jobs.	●		○		
	. Implement bridge positions to advance target group individuals	●		○		
	. Communicate programs to public.	●				○
	. Develop sensitising program for managers.	●		○		
	. Require contractors to meet all corporate policies.	●				
	. Reduce artificial barriers to recruitment.	●		○		
	. Develop in-house training programs. Special focus should be placed on training for the target groups.	●		○		
	. Develop hiring goals for native people.	●		○		○
	. Bring native employees on slowly to adapt to work environment.	●		○		○
	. Hire native people throughout the corporate structure.	●		○		
	. Develop special native education upgrading programs.	●		○		
	. Establish native affairs component within the Company.	●				
	. Assist in development of women and native advisory group within the Company.	●				

Table 2 (continued)


4
Primary
Secondary
RESPONSIBILITY
IMPLEMENTATION
ADVOCACY
COOPERATIVE DEVELOPMENT
OBJECTIVE
POLICY RECOMMENDATION
CORPORATION
GOVERNMENT
CORPORATION/ FEDERAL PROVINCIAL GOVERNMENT
CORPORATION/ MUNICIPAL GOVERNMENT
CORPORATION COMMUNITY
Contributions and Donations (9.6.8)
. Develop contributions and donations policy.
. Establish guidelines as to amount, type and extent of community support.
. Provide both financial and non-financial support.
. Develop social affairs fund as part of contributions and donations policy.
. Acknowledge non-financial contributions of employees.
. Develop scholarship program.
Respondents' Advice for Community Planning (9.6.9)
. Develop local/regional social services delivery council.
. Develop local autonomy and local government from outset.
. Appoint company personnel for liaison regarding changing labour force requirements.
. Provide warnings of potential decreases or shut downs.
. Support concept of resident involvement in design and planning.

WHY MOVED

Employment, then I moved my family. I'm happy I moved - I also want to see white man's society. It improved our life-style...we adjusted to white man's society, I can survive in it. I love my work. I can earn money to buy my home, vehicles, holidays - I love my independence.

Fort McMurray Resident

of policy approval achieved, further research required or company/government negotiations to be undertaken. Also identified were activities that should be undertaken immediately, followed by actions that could be delayed or were classed as 'contingency actions' - those activities necessary in the event of significant change.[4]

The Resource Community Study provided a rare opportunity to take an in-depth look at resource towns in Canada. The study process of focusing on direct resident input; using local interviewers, developing and administering the housing and recreational/cultural trade-off games, all contributed to new insights into the needs of resource community residents and their quality of life.

Many previous assumptions about resource towns were clarified. Most residents were actually quite happy with their community; their expectations were realistic and a growing proportion of residents were choosing to remain.

By taking a detailed look at resident needs, it was learned that priorities change over time; depending on the age and lifestyle of the residents and on the age and maturity of the community. This information can be valuable to planners in determining what services are most important, based on the demographic characteristics of projected residents.

It became possible to pinpoint specific housing features that were more critical than others, through the housing trade-off game. This information can have significance on housing policies for current and future resource towns.

The data base has only begun to be explored. Canstar has used it to formulate its housing and Local Benefits policies for a variety of development options. It has been used by Petro-Canada to develop a series of potential employee profiles. These profiles include requirements for recruitment, housing and community services for their Monkman Coal Project. Finally, the Aluminum Company of Canada recently commissioned a study elaborating on the history of Kitimat using the Resource Community Study data base.

Many other facets and areas of work have yet to be analyzed. A variety of other companies, governments and community organizations have expressed interest in various aspects of the data base to assist in the development of their own policy or to better understand their own community. The public availability of the study has generated great interest.

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4. This approach is based on the Strategic Choice methodology developed by Hickling/Sutton.

The Resource Community Study presents a significant contribution to the study of resource towns in Canada, both in its capacity as a planning tool and in the wealth of contemporary data it produced. It signals a new era in resource town planning.

DIGEST OF SEMINAR DISCUSSIONS

Introduction

Over the years, participants noted, a large number of communities have been established in Canada to provide accommodation for workers opening up and operating mines in new areas. Some of these communities have simply survived, some have become the focus of regional development and grown into major centres, and some have died. The mining industry is characterized by cyclical shifts and market demand and prices, by new discoveries, and by depletion and mine closures. These features, combined with the diversity of community types and locations combine to make planning and stability very difficult for mining communities. As a consequence, mining communities are exposed to extremes of economic risk that give them, along with other single-industry communities, a unique place in Canada's social and economic fabric; for these reasons, it was suggested, they may require special treatment at the hands of governments.

Keynote speaker Ian Haugh quoted the definition used by the Task Force on Mining Communities: '... a mining community is one in which mining activities play a predominant role in the community's economic base, and are the principal 'raison d'etre' for its establishment and continued existence.' This broad definition provided the point of departure for identification of characteristics of mining communities which have contributed to their special vulnerability to economic downturns.

Perhaps the most basic factor affecting mining communities is that mineral deposits are fixed in both location and size. The fixed location restricts the freedom to choose a desirable townsite in terms of its qualities as a place to live or as a site for diversification of economic activities. The fixed size means eventual exhaustion of reserves and closure of the mine. The dates of closures will vary widely from original estimates, as a result of fluctuating prices or discoveries of new reserves, thus contributing a large economic uncertainty factor to planning for the life span and ultimate date of mining communities. The Mining Association of Canada estimates that two-thirds of Canada's existing mines will be exhausted by the year 2000. The community and its infrastructure on the other hand represent a fixed cost and a fixed physical asset which, if it is not amortized by the time the mine closes, must be written off unless a diversification option emerges. A community can only rarely be moved to a new location.

For example, as Denis dePape pointed out in his paper, the physical relocation of the community of Sherridon to Lynn Lake in northern Manitoba required a number of very special circumstances.

Another characteristic of the mineral industry is that, as deposits close to markets and transportation have been developed, the industry has increasingly pushed into remote areas, where community development costs are higher and chances for diversification of the economy are often lower. At the same time, the quality-of-life expectations of the residents of mining communities have risen, increasing the demands for comfortable and attractive communities, and therefore both the initial investment and the operating costs. Consequently, a dilemma has arisen: over time, mining communities have become both more expensive to sustain and harder to abandon because of the sunk costs. This dilemma has been worsened by the prolonged slump in metal markets which has increased the rate of closures and reduced the profitability of the mines that have continued to produce, and it raises serious questions for existing communities and potential mineral developments.

Participants noted that the economic and social problems of mining communities, like those of other one-industry towns, have long been a matter for concern and government attention. For example, the 1948 Emergency Gold Mines Assistance Act was designed to attenuate the decline of gold mining in Canada during a prolonged period of fixed costs and rising prices, in order to slow the impact of mine closures on dependent communities. A more recent major expression of concern was the establishment of the Task Force on Mining Communities, comprising government officials from every level, and company and labour representatives, which studied and reported on current and long-term problems. In general, however, initiatives have tended to be reactive and ad hoc. A need was identified by seminar participants for more systematic approaches to the planning, location, and design of mining communities, and to anticipation of potential problems, particularly relating to mine closure, and to methods of dealing with such eventualities.

Interested Parties

The problems facing many of Canada's mining communities involve a great many individuals, organizations, and levels of government. The discussion focused on four main groups:

i the mining communities themselves - their governments, and their residents;
ii federal and provincial/territorial governments;
iii mining companies;
iv the mining workforce.

Mining Communities

One participant pointed out that mining communities, by their very nature, are something of a paradox. The term mining community implies temporary community. This in turn is an incongruous concept because, if any human and social organization is considered long lasting, it is the community. Therefore, the more a mining town exhibits the characteristics of a community, the more difficult its closure will be, no matter how well planned. Local governance, an attribute of a healthy community, facilitates planning but at the same time complicates the mine closure phenomenon, because it gives residents a vested interest, social, political and economic, in the survival of the community.

Responsible local government has not always been a feature of Canadian mining communities. Many of them began as company towns and operated without an elected council of residents or an independent local government administration. That situation has changed, and today most have elected local governments. As Paget and Walisser pointed out, the likely precursor to elected local government in new mining communities today is a temporary provincially-appointed administration, to be followed by responsible local government as quickly as possible. There was agreement among seminar participants that this shift to local self-government in mining communities has been beneficial to all parties.

Although practices are changing (as suggested in the papers by Douglas, MacDonald, Roberts, and Paget and Walisser) mining communities and their residents are frequently 'the last to know', as decisions are made by companies and senior levels of government concerning the physical nature of the townsite, priorities for local services, and the very future existence of mining communities. Richard Roberts' presentation on mining community residents' views concerning design and service priorities reinforced seminar participants' observations that the quality of life in mining communities is very important to those who live in them, and that residents should have some say in this sort of planning. Several speakers and participants pointed out that local self-government is perhaps the best way of involving residents in planning for their community.

Similarly, the economic security of residents is a matter for particular concern. In a very real sense, residents' economic future is tied to the mine; its fortunes affect their employment and the value of their investment in the community. Repeatedly, the seminar discussed the circumstances of homeowners who found themselves in what Paget and Walisser described as 'equity bondage', as the value of their housing investment plummeted with mine closure.

The comments of residents of mining communities prompted development of an understanding among the participants that harsh economic realities of closure are difficult to accept, once the residents have become committed to their community's existence through an emotional and a financial investment. While people working in the mining industry are necessarily aware of the fixed size of deposits and the eventual need to close and move on, comments made during the discussion suggest that many of them still have strong hopes that their communities will survive mine closure.

The seminar looked at the fragile nature of small businesses in mining communities, especially those involving investment in a fixed physical plant. Richard Roberts also pointed out the special plight of service sector workers and local entrepreneurs, who may not have a basic understanding of the uncertain and cyclical nature of mining industry to which they have tied their livelihood. In addition although they may be well connected to the 'rumour mill' referred to by Ron MacDonald in his presentation, local entrepreneurs and service-sector workers are likely less informed than mine employees on the future economic prospects of the company upon which their town depends. Moreover, they are unlikely to be protected by such things as housing buy-back clauses. This situation can contribute to a strong local uproar when mine closure is announced, and this uproar can in turn reinforce the mine employees' determination to keep the community going.

Federal and Provincial/Territorial Governments

Governments have a profound and growing influence on mining communities, from the decision on whether or not they will be established, their physical appearance, provision of infrastructure, utilities, services, and other forms of support, through to other policies and programs that may indirectly help or hinder the communities' survival.

The federal and provincial/territorial governments' role in mine closure or temporary shutdown was a topic of considerable interest. The comments by Joseph Lazarovich and Robin Glass on the Cyprus Anvil operation provided a focal point for discussion. A distinction was made between the role of the federal government in the north in dealing with a closure of major economic significance and the possible role of provincial governments in similar situations. Basically, it was acknowledged that the federal government's initiatives related to the closure of Cyprus Anvil represented an effort to keep the entire Yukon economy alive, while the impact of closure of a single mine on the overall economy of any province would not be as great. Nonetheless, the authors stressed the need for all levels of government to be prepared to deal in a concerted and comprehensive manner with the threat that mine closure can represent to mining communities. Participants agreed on the importance of a prudent mixture of general advance planning by governments in dealing with closure situations, as well as sensitivity to the particular cases at hand.

While participants noted the benefits of greater government involvement, the importance of avoiding disputes over jurisdiction, control, and responsibility for programs, both between and within governments, was stressed.

Mining Companies

Not surprisingly, the increased interaction of companies with various levels of government in mine development was of interest to participants. This involvement was generally seen as beneficial, bringing greater attention to social and economic concerns, for example through requirements for socioeconomic studies and monitoring, during all phases of a mining community's life. From the company perspective, although alleged delays caused by government planning and regulation are sometimes a source of criticism, the establishment of independent local governments in mining communities and greater involvement by senior governments gives weight to the notion that there is a 'shared risk' in the development of mining communities. Companies see in this an increasing recognition that they should not be held solely responsible for resolving all the community difficulties experienced during operations, during a shutdown, or at closure.

The increase in government regulation of the industry, plus government involvement in planning and even financing

specific developments, has changed the nature as well as the scope of the responsibilities of mining companies for mining communities. Increasing sophistication in human resources management has also sensitized companies to the trade-offs of community structure and the provision of services to employees. A number of the presentations alluded to the traditional mining town: built, owned, and run by the company. A major objective of a company in creating such towns has been to provide adequate housing for its employees on a cost-effective basis. While keeping costs in mind, companies have recognized that a community requires certain services and amenities in order to attract a workforce sufficiently stable to meet company needs, and that rising expections have increased these requirements. The costs of community development are high, and companies continue to have a significant financial stake in their mine-related communities, even when the infrastructure costs are shared by governments.

Recent years have seen an increasing range of options available to companies, concerning what kind of community to build and even whether or not to build a community. The financial trade-offs of building a complete community or using a rotational fly-in camp are obviously important. The discussions also revealed that companies are increasingly concerned about the social costs and benefits of different types of arrangements, relating to the well-being of the workforce and their families during the mine's operation and at the time of its eventual shutdown.

The Mining Workforce

Organized labour at the local union level and at the national level has an interest in the well-being of mining communities and their inhabitants. The seminar recognized traditional union interests in wages, benefits, working conditions, etc., as well as a number of issues related to worker mobility. Discussion centred to a great extent on some of the issues raised by the Mining Communities Task Force, including certification, the transfer of certification among jurisdictions, and the transfer of seniority and experience among companies which effect the ability of the work force to move when faced with mine closure or cut-backs. Prompted largely by the presentations by Ron MacDonald and Denis Brown, the bulk of discussion regarding labour's interest in mining communities focused on union roles and initiatives in dealing with the social and economic hardship

caused by shutdowns, and coordinated joint action involving labour with governments, companies and other community groups.

Existing Mining Communities

Classification

A typology which was found to be useful in the discussions distinguished between the following community types.

i Very remote communities, such as Nanisivik. These communities have been established to serve a particular mine and have no other economic base and little or no direct means of communication such as roads or railroads. The prospects for continuation of such places as independent economic units after mine closure are slim.

ii Remote communities, such as Pine Point. These places have some road or rail links with other communities which may be centres of mineral processing, transportation, and marketing. Residents may work in the mine itself, in the service or support sectors, or in secondary industry. However, the remoteness of these communities means that, unless they are located in an area amenable to tourism or forestry, such as Atikokan, or retirement, such as Riondel, the prospects for continuation after mine closure are not great, even with transportation links.

iii Less remote communities. Communities such as Sudbury and Rouyn/Noranda, while relying heavily on mining, have the strongest prospects of any mining communities for a stable population and economic diversification. If they are relatively close to major government or commercial centres and have adequate transportation links, workers and entrepeneurs in other sectors may be enticed to locate there. While the effects of a temporary or permanent mine shutdown remain severe, less remote communities thus have the greatest chances of long-term survival.

The Problems of Existing Communities

Communication

For communities facing the possibility of mine cut-backs or closure, the very first problem involves adequate communication between all parties, both regarding the economic outlook for the mining operation, and regarding future alternative courses of action for dealing with the possible closure. The principal sources of information in this communication network are the company, and the various levels and agencies of government that have programs to deal with closure and diversification. However, both these sources face a number of constraints which must be overcome if effective and constructive communication is to result.

Companies, for example, face the problem that economic-outlook information should go first to their shareholders rather than to workers. One of the ways that Inco has sought to deal with this constraint in Sudbury is by holding two confidential briefing sessions each year with the union on matters related to the economic outlook. Participants commended this sort of approach, pointing out that it is wise to limit the items discussed in formal collective bargaining sessions as tightly as possible, and to reserve the broadest possible range of topics for less formal company/union discussions in non-adversarial settings such as joint committees and discussion groups.

Government communications with companies and communities are constrained by the large numbers of government levels, and departments and branches within governments, that deal with a variety of programs and services related to closure and diversification issues. It was felt that the senior level of government (generally federal) should initiate information packages oriented toward community needs and cataloguing as many as possible of the various government sources of information and assistance. A centre of responsibility should be identified, as a 'single window' approach to coordination of government activities was recommended. Governments should also provide information on policy alternatives under consideration, to permit community inputs, and on the policy decisions and the political commitment of government towards the problems of mining communities.

Risk Sharing

Perhaps the most fundamental problem which received attention in the course of the discussions is that of the equitable apportionment of economic risks in the establishment, operation, and possible decline of mining communities. Originally, with company-owned towns and housing, the company and ultimately the mineral deposit bore most of the economic costs and risks. However, as was apparent from the presentations by Lazarovich and Glass, Paget and Walisser, and Ian Haugh, governments have taken on increasing responsibility for the decisions about resource communities, and, along with workers, bear an increasing portion of the economic risks.

The transition from company-owned housing to worker-owned housing would seem at first sight to have transferred most of the housing and infrastructure related risks to the workers. This is only true, however, where workers have acquired a significant level of equity in their housing; for new mortgages, the bulk of the risk is carried by the mortgagor, the mortgage insurer, or the holder of the buy-back obligation (the company). Canada Mortgage and Housing, for example, found that a significant proportion of its $900 million in losses since 1976 could be attributed to resource communities; Thompson and Sept Isles alone accounted for over $60 million of that total. Unfortunately, CMHC's subsequent plan to reduce its risk-exposure in resource communities, described in Mulvihill's presentation, will add one more financial burden to the residents.

For communities that seek to fund infrastructure by debentures, the municipal government can be left holding the bag, as in the case of Pine Point, which borrowed to expand its services in anticipation of a mine expansion that was later postponed. This municipal economic responsibility can in turn be passed on to the provincial government, as happened at Uranium City, where the closure decision was made at the provincial level. The resulting lack of taxpayers in the community meant that the province had to pick up the municipality's financial obligations.

In response to the problem of community infrastructure investments, Paget and Walisser show how this problem can be resolved through the negotiation of infrastructure debt guarantees with the mining company. Atikokan has taken a different approach, preferring to reduce risk rather than spread it widely among various groups. The risk-reduction method used in Atikokan was a pay-as-you-go policy for municipal expenditures, with no significant accumulation of long-term debt to be carried by a shrinking tax base.

There are problems with this approach as well, however. For example, major infrastructure improvements such as sewer and road upgrading have been put off, and will be difficult to finance with a reduced tax base. Furthermore, a high level of services and amenities, although costly, helps to attract new industry and new residents during an attempt at diversification. These factors call for a high degree of financial planning in mining communities.

Diversification vs. Community Closure

Participants discussed the two major alternatives that may be available to a community facing closure of a mine which is the economic base for the community: diversification of the economic base, or closure of the community. For existing communities facing mine closure, the decision to promote diversification or to plan for shutdown was thought to rest most heavily with senior levels of government. Local governments also have a role, for example in consolidating the will of residents to remain and in using local talent in the quest to diversify. The more remote the community, however, the more crucial are the direct actions of federal and provincial/territorial governments. Senior governments can encourage communities to diversify and give them short- and long-term assistance, or they may 'pull the plug' by not providing aid or encouragement. Participants acknowledged that governments do not make such decisions in a cavalier manner, and that the increasing expectations of community residents for support in surviving downturns and closure are carefully considered.

The challenge of creating a diversified economic base for mining communities is a major task for senior levels of government, and even more so for the mining communities themselves. Mining companies and unions are also interested in such a process, even before a mine closure decision, since a diversified community is less susceptible to the economic and social shocks associated with mine shutdown or closure, is generally a more attractive place to live, and provides a better labour market.

Dealing with Mine Cut-backs and Closure

The presentations by Dennis Brown on Atikokan and Ron MacDonald on Sudbury provided positive examples of how two different communities have dealt with downturns in their mining operations. Both cases revealed the need for

unity within the community, to deal with low community esteem (first, on the part of residents, and second, in the minds of outsiders) and to plan for the future. A number of positive attributes of each location was noted: for example, Sudbury is not a remote community, and enjoys good transportation links with other major centres; both centres are located in areas of great natural beauty, with tourism and recreation potential; Atikokan has forests as well. Atikokan also gained signficant advantage from an extended period of notice of closure before its two major mines ceased operations.

Participants contrasted the prospects for places like Atikokan and Sudbury with those of more remote mining towns like Pine Point or Uranium City. These and other mining communities, with isolated locations, few natural attractions and few apparent economic development opportunities (aside from their original proximity to a good orebody) have dim hopes of remaining as vital centres after mine closure. However, both of these latter two communities have or had a fairly stable population, which included a significant number of residents who considered the place to be their long-term home, and strongly resisted the idea of giving up on it. In Pine Point, for example, the level of stability can be deduced from the fact that 700 of the 900 voters in the community had been in residence sufficiently long to cast ballots in the 1982 plebescite on division of NWT (the plebescite had a special 5-year residence requirement).

It was noted that, if a community is to survive, it must retain its young people, and to do that it must have long-term employment prospects. Participants commented that some of the more cosmetic government-funded development projects in Sudbury, although they provided much-needed employment in the short term, were not aimed at diversification of the economic base or at the creation of long-term opportunities.

Some participants suggested that economic diversification of a mining town is made more difficult by the high wages paid by mining companies to skilled workers in remote areas. Secondary industry generally cannot compete with this wage level, and can find lower-cost labour more easily in large communities. This contention, however, was disputed in the case of Sudbury, where, it was affirmed, almost all of the workforce under 26 years of age is unemployed, and willing to work below Inco's pay scale. Many have been lining up for jobs that paid $230 per week, when they could have stayed home for $210.

In general, participants felt that the correct decision (i.e. closure of the community rather than diversification) had been taken in Uranium City, where the Task Force had found little opportunity for diversification. It was felt that closure of the town was by far preferable to an artificial preservation of the community, which would have required subsidization from the provincial or federal levels of government.

Lessons for Existing Communities

The experiences of the past should be a source of guidance for future actions concerning communities faced with the possibility of mine closure. A number of points were stressed by participants as important lessons for all interested parties. Participants argued that mining communities must have well designed organizational structures, that full and open procedures for dealing with crises must exist, and that suitable government and company programs for dealing with mine closure must be in place. The specific lessons are summarized below.

i Plan early. Uranium City's abrupt closure caused considerable financial hardship for the community, and for individuals, that could have been avoided or at least reduced by an earlier warning. In fact, Day One of a project is the best time to start planning for the crises of periodic recession and closure. Atikokan, in contrast to Uranium City, was able to put its considerable lead-time to good use. Manitoba's Mining Community Reserve is another approach that anticipates problems well in advance.

ii Risk sharing. All interested parties should make an effort to ensure that mechanisms are designed and used to promote an equitable distribution of the financial risks involved in relocation, retraining, and equity in homes, businesses, and community infrastructure. (See for example the paper by Paget and Walisser on Tumbler Ridge.) It was felt that, where possible, a mineral deposit should ultimately bear the costs of a community created expressly to exploit it.

iii Community governance. It was felt that a community's chances of survival and/or successful diversification are greatly enhanced if the leadership comes from the community itself and if the community as a whole

shares in the efforts and enthusiasm of the leaders. Government- or company-led efforts are much less likely to succeed.

iv Plan openly. Efforts should be made to include all interested parties in the information exchanges, including local entrepreneurs and other support people. It was also suggested that misleading rumours be stamped out promptly, since perceptions can be as important as reality in shaping attitudes and determining morale. The use of professional consultants or advisors to coordinate community inputs and propose and manage solutions was recommended.

v Plan together. Cooperation should be the principal goal of communication, rather than an adversarial process of winning concessions. It was suggested, for example, that company-labour collective bargaining be restricted to essential financial matters, and as many as possible of the peripheral matters should be discussed in other settings, such as tripartite committees.

vi Assistance programs. These should always be custom-designed for the special circumstances of each community, well-coordinated (a 'single window' would be ideal although often difficult to achieve in practice), well publicized, and geared toward promoting long-term opportunities rather than stop-gap cosmetic projects. Section 38 funds were widely used during the height of problems for many communities, but thought should now be given as to whether this is the most efficient use of government support.

vii Exploration. The best and most reliable form of 'diversification' for a mining community is expansion of the existing ore reserves and finding new ones by successful exploration. Not only does it prolong the economic life of a community, the additional time significantly improves the chances for diversification into other economic activities.

Planning for New Projects

The seminar dicussions drew on examples of past and current examples of planning for mineral developments in remote areas. The small-group sessions focused on future directions, as did many of the presentations.

Participants agreed that mining communities still have a valuable role to play as viable and satisfying places of residence for people in the mining industry. Their contribution to sustaining Canada's 'pioneering spirit' and frontier development was also thought to be valuable to the country as a whole. With this general orientation in mind, participants sought fuller exploration by companies and governments of the relative merits of various settlement options: block-time commuting to camps; communities dependent on a single mine or company; regional communities servicing a number of companies; communities with a diversified economic bases, and other alternatives. It was agreed that social and political costs and benefits of particular approaches must be weighed, in addition to economic factors.

Denis DePape's presentation focused attention on the positive and negative attributes and impacts of different types of living arrangements. DePape developed a continuum, ranging from the fly-in camp at one end to the diversified community at the other, that is useful for evaluation and comparisons. For example, if a decision is made to develop a fly-in camp, the merits of different rotational schemes for attracting a relatively stable workforce of residents from nearby communities, as well as from afar, must be compared. This can help to avoid what seems to be an increasing trend towards 'fly-over' of northern communities, and to provide continuing job opportunities to northern residents.

A decision to create a new residential community dependent on a single mining project was thought to necessitate a number of very important considerations for companies and for governments. Among those identified by participants were:

- the need to allocate financial responsibility among the various interested parties for such things as infrastructure and housing (i.e. shared risk);
- the need to anticipate residents' wishes (in the case of a new community in the planning stage, surveys such as those reported by Roberts can be used to anticipate the wishes of potential residents) concerning quality-of-family-life issues, such as the physical form of the community, and the services and amenities it will provide;
- the location of the deposit, in terms of proximity of transportation, of scenic areas, of opportunities for diversification such as forestry, agriculture etc.;
- the need to identify prospects for diversification, and establish appropriate organizational structures and pro-

cesses to capitalize on them (including an exploration program);
- the need to develop a plan to move from the construction or 'new town' stage to the creation of responsible local government;
- the need to plan for and establish a community with a sufficient revenue base to maintain its physical plant after the initial construction, and to meet local service needs;
- the expected life of the mineral deposit and its ability to support the required infrastructure;
- and last but not least, the role that resource communities have played in pioneering the development of Canada's remote regions, as well as many regions no longer considered remote.

The Need for Resolution of Government Policy

Major policy decisions affecting the development of mining communities and workforce accommodation for new developments are largely provincial responsibilities, except in the Yukon and Northwest Territories, and as a consequence, a wide range of approaches have resulted in the various jurisdictions. Government policies and programs influence decisions to proceed with new developments, to build new communities or bring workers from existing communities, and other issues which may affect company decisions and the recruitment of a workforce to remote areas.

Participants concentrated on certain federal initiatives in pointing out that policy changes, for whatever reasons, have sent conflicting signals to the mining industry concerning the government's interest in northern development. In the days when Pine Point was opened up, for example, it was noted that federal policies, both in words and in actions, were geared towards developing Canada's north. Roads, railroads, and airports were being provided to serve the mining industry and at the same time to promote regional development. For example, the railroad built by CNR to service Pine Point has also benefited other northern regions; even the Beaufort development uses the railhead at Hay River to bring in supplies to the Mackenzie delta. If this sort of northern development thrust has changed, it was suggested, it is a betrayal of the pioneers, both companies and individuals, who responded to the government incentives of earlier years.

And there are strong indications, participants felt, that it has changed. The federal government's intention to tax northern nonsalary benefits, although introduced for

reasons of equity throughout the tax regime, was considered by some participants to be in conflict with a policy of encouraging northern development and the development of northern communities. It is feared that it will, for example, encourage fly-in developments that will in fact fly over the Territories, to a large extent excluding northern residents from participation in mining developments in their regions.

There was a general consensus that, if northern benefits should ever become taxed, then some other mechanisms would be required to offset the resulting higher cost of living in the north. These could range from introduction of direct government subsidies to the abandonment of all but very high grade mineral deposits in the north.

Similarly, the suggestion that CMHC will increase its mortgage insurance premiums in resource communities to reflect the real risk to the corporation was seen as an increased cost and therefore an additional threat to northern communities, one which would discourage home ownership and family living, and encourage fly-in camps.

Seminar participants concluded that federal government policy towards northern development and northern mining communities must be clarified before full attention can be given to long-term planning and to ad hoc crisis measures. It was not clear to participants whether federal policy still encourages mining community development, or whether the high costs of maintaining northern communities, declining sovereignty concerns, or other factors, have led to a change in that policy. Either way, the policy must be known before effective planning and action can occur. Consequently, the seminar participants agreed that an appropriate course of action would be for the Centre for Resource Studies to write on their behalf, to the Prime Minister, the Minister of Finance, the Minister of Energy, Mines and Resources and other relevant members of Cabinet requesting clarification of federal policy regarding northern mining communities. A copy of the reply from the Honourable John Munro is attached as appendix I.

APPENDIX I

Minister of Indian Affairs and Northern Development
Ministre des Affaires indiennes et du Nord canadien

Ottawa, Canada
K1A 0H4

MAR 27 1984

Dr. Brian W. Mackenzie
Interim Executive Director
Centre for Resource Studies
Queen's University
KINGSTON, Ontario
K7L 3N6

Dear Dr. Mackenzie:

Thank you for your letter of October 21, 1983, concerning your Centre's seminar on mining communities. Please accept my congratulations to you and the Centre's staff on completing another successful seminar. I understand that a great deal of discussion took place, owing to the participants' interests in the complex issues involved.

I agree that we must continue to review the overall policy framework in the north to ensure that the best possible policy environment exists to encourage northern development. I would not limit this concern only to those policies related to mining communities but would expand it to include the northern mineral industry as a whole. As you know, I am already taking action on the broad policy front, primarily through the northern mineral policy development exercise currently under way in my Department, but also through other related initiatives.

During my recent speech to the 11th Annual Geoscience Forum in Yellowknife, I explored a number of the complex issues involved in the development of a mineral policy for the north and I presented some thoughts on the development of mining communities. I am enclosing a copy of my notes for this presentation which, I believe, you will find most informative.

The Centre for Resource Studies seminar had raised the issue of taxation of northern non-salary benefits as one of the most serious problems facing northern communities. I am pleased to be able to inform you that on December 9, 1983, in Yellowknife, I announced on behalf of my colleague, the Honourable Marc Lalonde, that the special tax remission for housing and travel benefits received

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by employees in northern Canada and selected posts will be maintained. A copy of the news release giving details of the announcement is attached. You will note that there was strong support for this decision by a number of my colleagues as well as by the Minister of Finance for the Northwest Territories. We also intend to keep the lines of communication open on this issue. I believe this decision gives concrete evidence of the concern which my Cabinet colleagues and I have for northern issues. You can be assured that I will continue to present the case for northern development as strongly as possible when northern issues are being discussed, taking into account my other responsibilities as Minister of Indian Affairs and Northern Development.

I trust that the Centre will continue in the important role it has played in the past by providing a good forum for discussion through seminars on specific issues and by informing the public through the publication and distribution of seminar information. The detailed studies on mineral policy issues produced by the Centre provide valuable analyses not readily duplicated elsewhere.

Yours sincerely,

John C. Munro

Attach.

c.c. The Honourable Jack Austin, P.C., M.P.
c.c. The Honourable Lloyd Axworthy, P.C., M.P.
c.c. The Honourable Jean Chrétien, P.C., M.P.
c.c. The Honourable Judy Erola, P.C., M.P.
c.c. The Honourable Donald Johnston, P.C., M.P.
c.c. The Honourable Marc Lalonde, P.C., M.P.
c.c. The Honourable Roméo LeBlanc, P.C., M.P.
c.c. The Honourable Edward Lumley, P.C., M.P.
c.c. The Honourable Roy MacLaren, P.C., M.P.
c.c. The Honourable André Ouellet, P.C., M.P.
c.c. The Honourable John Roberts, P.C., M.P.
c.c. The Honourable David Smith, P.C., M.P.
c.c. The Right Honourable Pierre Elliott Trudeau, P.C., M.P.

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APPENDIX III

Seminar Program
Mining Communities: Hard Lessons For the Future

Tuesday, September 27

7:00 p.m. **Welcome and Opening Remarks**
Brian Mackenzie

Identifying the Issues
Keynote Address by Dr. Ian Haugh

Wednesday, September 28

9:00 a.m. **The Industry Perspective**
Rod Douglas

10:30 a.m. **The Union Perspective**
Ron MacDonald

11:15 a.m. **The Community Perspective**
Dennis Brown

1:30 p.m. **The Government Perspective**
Joseph Lazarovich and Robin Glass

2:30 p.m. Small group discussions: better approaches to closure

4:00 p.m. Small group reports, conclusions, recommendations

7:00 p.m. **Financial Risks in Home Ownership**
William Mulvihill

Thursday, September 29

9:00 a.m. **Panel: New Approaches to Community Planning**

Denis de Pape
Gary Paget
Richard Roberts
Charles Cloutier

1:30 p.m.	Small group discussions - better approaches to community
2:45 p.m.	Small group report, conclusions, recommendations
4:00 p.m.	Closing remarks

THE CENTRE FOR RESOURCE STUDIES

The Centre for Resource Studies (CRS) was established in 1973, under the sponsorship of Queen's University, the federal Department of Energy, Mines and Resources, and The Mining Association of Canada, to carry out a program of research and publication on mineral policy issues.

The Centre provides opportunities for multidisciplinary research in resource studies at Canadian universities, furnishes reliable information on matters related to mineral resource policy, and promotes closer liaison between government, industry and other concerned groups. The research program is carried out both at the Centre and by means of contracts with qualified investigators, usually at Canadian universities. Small exploratory studies are also funded, through a system of grants-in-aid of research. CRS Seminars involve representatives from governments, industry, universities, labour, and other interested groups in working sessions on issues of current concern. Through this program of research and seminars, and the resulting publications, the Centre contributes to informed discussions and a better understanding of significant issues.

The Centre is governed by a board of directors which establishes general policy and priorities for research. The board has sixteen members, appointed by Queen's University, The Mining Association of Canada, and the federal government. Guidance on the research program, together with discussion of policy issues and other matters, is provided by the Advisory Council. This body comprises all researchers associated with the Centre, together with members appointed from such groups as governments, industry, labour, and other interests. A Research Advisory Committee aids in the development of projects and the selection of research proposals. The executive director and staff are responsible for the work of the Centre within this framework.

Most of the funding for the Centre's activities is provided by two of the sponsors, EMR and MAC. In addition, the Centre accepts contracts from other organizations interested in mineral policy research.

The Centre welcomes comments on its publications, proposals for research projects or for publication, or enquiries about any aspect of its work. For further information, contact:

Centre for Resource Studies
Queen's University
Kingston, Ontario, Canada K7L 3N6
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CRS PUBLICATIONS

Monographs and Collections

Conflict and its Resolution in the Administration of Mineral Resources in Canada, by R.M. Burns; 62 pages, 11 tables. Published 1976.

The Impact of the Mining Industries on the Canadian Economy, by R.W. Boadway and J.M. Treddenick; 116 pages, 15 tables. Published 1977.

The Transportation Impact of the Canadian Mining Industry, by A.I. Wallace; 154 pages, 17 tables. Published 1977.

Human Resources in Canadian Mining: A Preliminary Analysis, by J.A. MacMillan, G.S. Gislason, and S. Lyon; 174 pages, 48 tables. Published 1977.

Health and Safety in the Canadian Mining Industry, by G.W. Gibbs and P. Pintus; 248 pages, 58 tables. Published 1978.

The Canadian Nonferrous Metals Industry: An Industrial Organization Study, by E. Urquhart; 158 pages, 18 tables. Published 1978.

Economic Impacts and Linkages of the Canadian Mining Industry, by P.E. Nickel et al.; 140 pages, 31 tables. Published 1978.

Environmental Impact of Mining in Canada, by E.A. Ripley et al.; 274 pages, 45 tables. Published 1978, reprinted 1982.

Effects of Taxation on Base Metal Mining in Canada, by B.W. Mackenzie and M.L. Bilodeau; 188 pages, 29 tables. Published 1979.

Gold: The World Industry and Canadian Corporate Strategy, by E. Cousineau and P.R. Richardson; 192 pages, 32 tables. Published 1980.

The Impact of Policy Change on Decisions in the Mineral Industry: The Case of Exploration in Manitoba, 1969-77, by B.E. Owen and W.J. Kops; 116 pages, 8 tables. Published 1980.

The Role of Mineral Taxation in Industry/Government Conflict: The Case of the Saskatchewan Potash Reserve Tax, by David L. Anderson; 135 pages, 41 tables, 2 illustrations. Published 1981.

Profitability in the Canadian Mineral Industry, by Charles H. Pye; 178 pages, 42 tables, 12 illustrations. Published 1981.

Foreign Investment Control in the Canadian Mineral Sector: Lessons from the Australian Experience, by David L. Anderson; 180 pages, 22 tables. Published 1983.

Financing Canadian Mining in the Eighties: Strategies for Action, edited by David Yudelman; with papers by B. Bradley, A. Dorland, J. Erola, P. Gillin, P. Glenshaw, S. Greenwald, B. Kalymon, P. MacCulloch, B. Mackenzie, K. Murphy, A. Powis, R. Sultan, and D. Yudelman; 240 pages. Published 1984.

Proceedings

No. 1 Rate-of-Return Taxation of Minerals, with papers by B.W. Mackenzie and M.L. Bilodeau, P.M.T. White, N.D. Olewiler, J.T. Cawley, and E.P. Gush; 109 pages. Published 1978.

No. 2 International Competition and the Canadian Mineral Industries, with papers by H.C. Armstrong, H.T. Fargey, C.G. Miller, N.D. Olewiler and P.R. Richardson, D. Perlstein, and K.C. Hendrick; 109 pages. Published 1978.

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No. 4 Canada's Mineral Trade: Implications for the Balance of Payments and Economic Development, with papers by B.W. Wilkinson, D.J. McCulla, J.G. MacKinnon, A.G. Balogh, and W.G. Chambers and J.S. Reid; 113 pages. Published 1978.

No. 5 Employee Relations Initiatives in Canadian Mining, with papers by W.J. Bennett, F.R. Nogas and J.P. Fulcher, W.F. Clarke, S.B. Jones, T.F. Cawsey and P.R. Richardson, and P. Warrian; 85 pages. Published 1979.

No. 6 Junior Mining in Canada: The Problem of Investment and Securing Fair Returns, with papers by A.J. Freyman, B.A. Kalymon, J.D. Mason, D.W. Scrim, E.H. Neave and P.R. Richardson, and E.G. Thompson; 101 pages. Published 1979.

No. 7 The Future for Junior Mining in Canada, with papers by Hon. J.A.C. Auld, J.L.C. Lyndon, N.B. Keevil Jr., D.G.C. Menzel, H.T. Fargey, A.J. Freyman, Hon. R. Hnatyshyn, J.C. Baillie, D.W. Scrim, J.P. Bunting, E.H. Neave and P.R. Richardson, L.A. English, M. St-B Harrison, R.H. Grasley, and Hon. F. Drea; 125 pages. Published 1979.

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No. 14 Mining Communities: Hard Lessons for the Future, with papers by I. Haugh, R.P. Douglas, R. MacDonald, D. Brown, R.D. Glass, J. Lazarovich, W. Mulvihill, D. DePape, G. Paget, B. Walisser, and R. Roberts; 211 pages. Published 1984.

Working Papers

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No. 13 Cerro Colorado: A Case Study of the Role of Canadian Crown Corporations in Foreign Mineral Development, by C.G. Miller, N.D. Olewiler, and P.R. Richardson; 44 pages, 5 tables. Published 1979.

No. 14 The Administration of Mineral Exploration in the Yukon and Northwest Territories, by K.A. Graham, R.G. McEachern and C.G. Miller; 42 pages. Published 1979.

No. 15 Public Policy Aspects of Information Exchange in Canadian Mineral Exploration, by D.O.Downing and B.W. Mackenzie, 52 pages. Published 1979.

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No. 23 Effects of Water Pollution Control Costs on Base Metal Mining in Canada, by N.A. Papanicolaou and B.W. Mackenzie; 74 pages. Published 1981.

No. 24 The Costs of Uncertainty: Regulating Health and Safety in the Canadian Uranium Industry, by I. Robinson; 74 pages, 3 illustrations. Published 1982.

No. 25 Economic Guidelines for Small Mineral Deposits/ Directives economiques relatives aux petits gisements, by B.W. Mackenzie and M.L. Bilodeau; 66 pages, 12 tables, 14 illustrations. Published 1982.

No. 26 Effects of Public Policy on Investment Demand: The Case of Taxation in Canadian Base Metal Mining, by B.W. Mackenzie and C.H. Pye; 58 pages, 17 tables, 11 illustrations. Published 1982.

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Technical Papers

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No. 3 Secondary Supply of Copper and Ferrous Metals and Canadian Metal Markets, by K. Stollery; 138 pages, 24 tables, 16 illustrations. Published 1983.

Mineral Policy Updates

Mineral Policy Update 1981, by Margot J. Wojciechowski and C.E. McMurray; 85 pages. Published 1983.

Mineral Policy Update 1982, by Margot J. Wojciechowski and C.E. McMurray; 88 pages. Published 1983.

Eastern Arctic Study
(Published jointly by the Centre for Resource Studies and the Institute of Local Government)

The Inuit Land Claim, Constitutional Development, and Local Government Reform in the Northwest Territories: An Overview, by Katherine A. Graham and Anne B. McAllister, 50 pages, published 1981.

Industrial Development in the Eastern Arctic Study Area: A Preliminary Overview, by C. George Miller, 31 pages, published 1981.

Eastern Arctic Study Case Study Series: The Alaska Native Claims Settlement, by David Baker, 100 pages, published 1982.

Eastern Arctic Study Case Study Series: Mineral Exploration in the Baker Lake Area, by Anne B. McAllister, 58 pages, published 1982.

Eastern Arctic Study Case Study Series: The Development of the Polaris Mine, by Katherine A. Graham, 61 pages, published 1982.

Eastern Arctic Study Case Study Series: The Nanisivik Mine, by Margot J. Wojciechowski, 62 pages, published 1982.

Eastern Arctic Study Annotated Bibliography, by M.P. Sharon Brown, 68 pages, published 1984.

A Climate for Change: Alternatives for the Central and Eastern Arctic, by Katherine A. Graham, M.P. Sharon Brown, Anne B. McAllister, and Margot J. Wojciechowski, Final Report of the Eastern Arctic Study, 198 pages, published 1984.